BIOLOGICAL TECHNICAL REPORT
FOR
Van Cleve Tentative Parcel Map
TPM 20702

ER 02-20-001

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1.0 SUMMARY OF FINDINGS

The proposed project is a minor subdivision of a 51.87 gross acre parcel into two residential lots of 24.91 and 26.95 acres. The proposed project also includes a 34.86 acre biological open space easement. The project is located in the Community of Jamul, in East San Diego County, south of Deerhorn Valley Road (Figure 1). The proposed project is located within the USGS 7.5' Barett Lake quad, Township 17 south, range 2 East (Figure 2). The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP).

This report provides information regarding existing conditions, compliance with the Resource Protection Ordinance (RPO), compliance with the Biological Mitigation Ordinance (BMO) and performs an impact analysis based on the current site design. This report also identifies mitigation measures that conform with the Biological Mitigation Ordinance, and Resource Protection Ordinance, therefore reducing any impacts to below a level of significance.

General biological surveys, sensitive plant surveys, focused surveys for the Quino checkerspot butterfly and Resource Protection Ordinance Study to identify the limits of the RPO wetland were performed onsite. The biological resources on-site include three habitat types: dense coast live oak woodland which encompasses the RPO wetland, southern mixed chaparral and disturbed habitat. Biological resources that are afforded some level of protection under the Biological Mitigation Ordinance would include the dense coast live oak woodland and the southern mixed chaparral. The Resource Protection Ordinance would afford protection to the RPO wetland and buffer. The site does not qualify as a Biological Core Resource Area (BRCA) in accordance with the BMO.

No state or federally listed plant or animal species were observed on-site. One sensitive plant species, the Engelmann Oak was observed onsite. This is County list D species. No Engelmann oaks are proposed to be removed as a result of the proposed project. Two sensitive wildlife species were observed onsite, the red-tailed hawk and the western bluebird. Four sensitive plant species have a moderate potential to occur onsite, Peninsular spineflower, delicate clarkia, Otay Mountain lotus, and felt-leaved monardella. One sensitive animal species, the turkey vulture has a high potential to occur onsite. Seventeen animal species have a moderate potential to occur onsite including the coast patch-nosed snake, coastal rosy boa, coastal western whiptail, San Diego horned lizard, San Diego ringneck snake, Bell's sage sparrow, Cooper's hawk, golden eagle, Dulzura pocket mouse, greater western mastiff bat, long eared myotis, mountain lion, pallid bat, ringtail, San Diego woodrat, small-footed myotis, and southern mule deer.

Impacts to approximately 25.93 acres of southern mixed chaparral and approximately 3.54 acres of disturbed habitat will occur as a result of the proposed project. All impacts would be fully mitigated in accordance with the Biological Mitigation Ordinance. Impacts to the RPO wetland and RPO buffer that are not allowed pursuant to RPO were avoided through site design. The oak woodland/RPO buffer is proposed to be enhanced through hydroseeding and application of a grass specific herbicide in the southern mixed

chaparral habitat within the buffer which is an allowed use of RPO buffers pursuant to RPO.

Mitigation for impacts 25.93 acres of southern mixed chaparral will be mitigated through the onsite conservation of 31.78 acres of southern mixed chaparral. Mitigation for impacts to approximately 0.83 acres of oak woodland understory will be mitigated through the onsite conservation of 1.38 acres of oak woodland and acquisition of 0.69 acres of oak woodland off-site if purchased outside of a BRCA or 0.35 acres if purchased within a BRCA. An additional 0.29 acres of un-impacted oak woodland and 0.23 acres of impacted southern mixed chaparral are included within the open space easement. This habitat is associated with the RPO wetland and buffer. Potential impacts to sensitive animal species observed and with a high and moderate potential to occur onsite will be mitigated by the habitat based mitigation in accordance with the BMO. Implementation of these mitigation measures will reduce impacts to below a level of significance.

2.0 INTRODUCTION

The proposed project is a minor subdivision of a 51.87 gross acre parcel into two residential lots of 24.91 and 26.95 acres. The proposed project also includes a 34.86 acre biological open space easement.

The project is located in the Community of Jamul, in East San Diego County, south of Deerhorn Valley Road (Figure 1). The proposed project is located within the USGS 7.5' Barett Lake quad, Township 17 south, range 2 East (Figure 2). The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP).

Topography, Soils, Land Use

The project is generally a northerly facing slope ranging from gentle to steep slopes. Elevations onsite range from approximately 2475 feet above mean sea level along the northern property line increasing to approximately 2825 feet above mean sea level at the south-eastern corner of the property. The soils on-site consist of Vista rocky coarse sandy loam (Vve), 15 to 30 percent slopes and Cieneba-Fallbrook rocky coarse sandy loam (CmrG), 30 to 75 percent slopes (Bowman 1973).

The site has some existing improvements that include a large agricultural building, power lines, well, water lines and access roads throughout the property. In addition to the approved improvements identified above approximately 25.59 acres of additional clearing has occurred.

Regional Setting

The proposed project is located within the Metro-Lakeside-Jamul portion of the Multiple Species Conservation Program (MSCP). The site is located in area of rural residential and agricultural lands interspersed with undeveloped lands. The site is mapped as having medium habitat value. The site is not located within a pre-approved mitigation area nor is it located within 1 mile of a pre-approved mitigation area or biological easement based on the information provided to the applicant at the time of their pre-application meeting with the County. The site does not qualify as a Biological Resource Core Area (BRCA) as defined within Article VI.A.1.a of the Biological Mitigation Ordinance as explained below.

Article VI.A. of the County of San Diego Biological Mitigation Ordinance (BMO) specifies the process for determining the mitigation requirements for sensitive habitats. Item 1 within Article V1.A states that both the impact site and mitigation site shall be evaluated to determine if either or both sites qualify as a Biological Resource Core Area. The site was evaluated in accordance with the BMO to determine whether it qualifies as a BRCA. The analysis for each criteria is provided below.

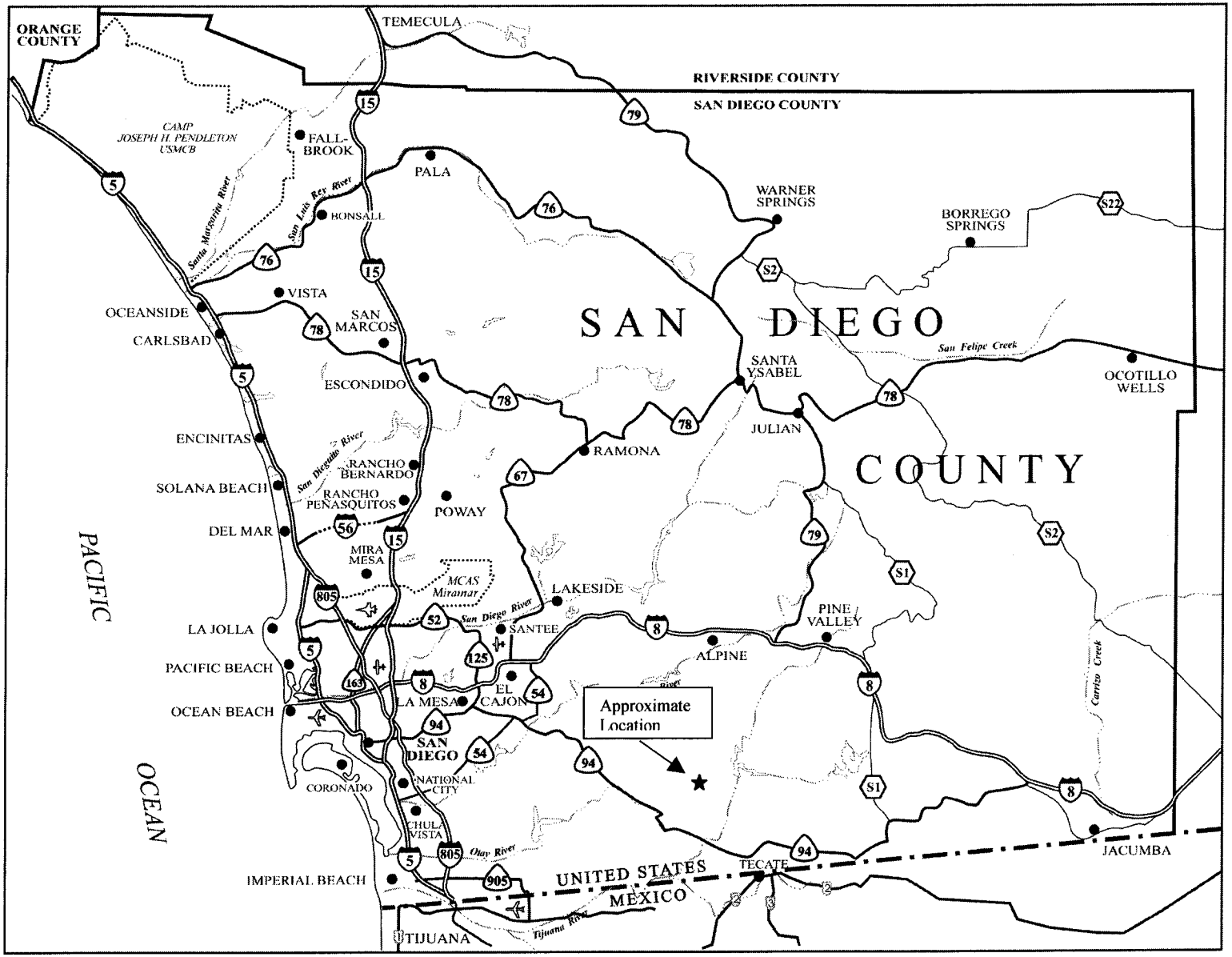
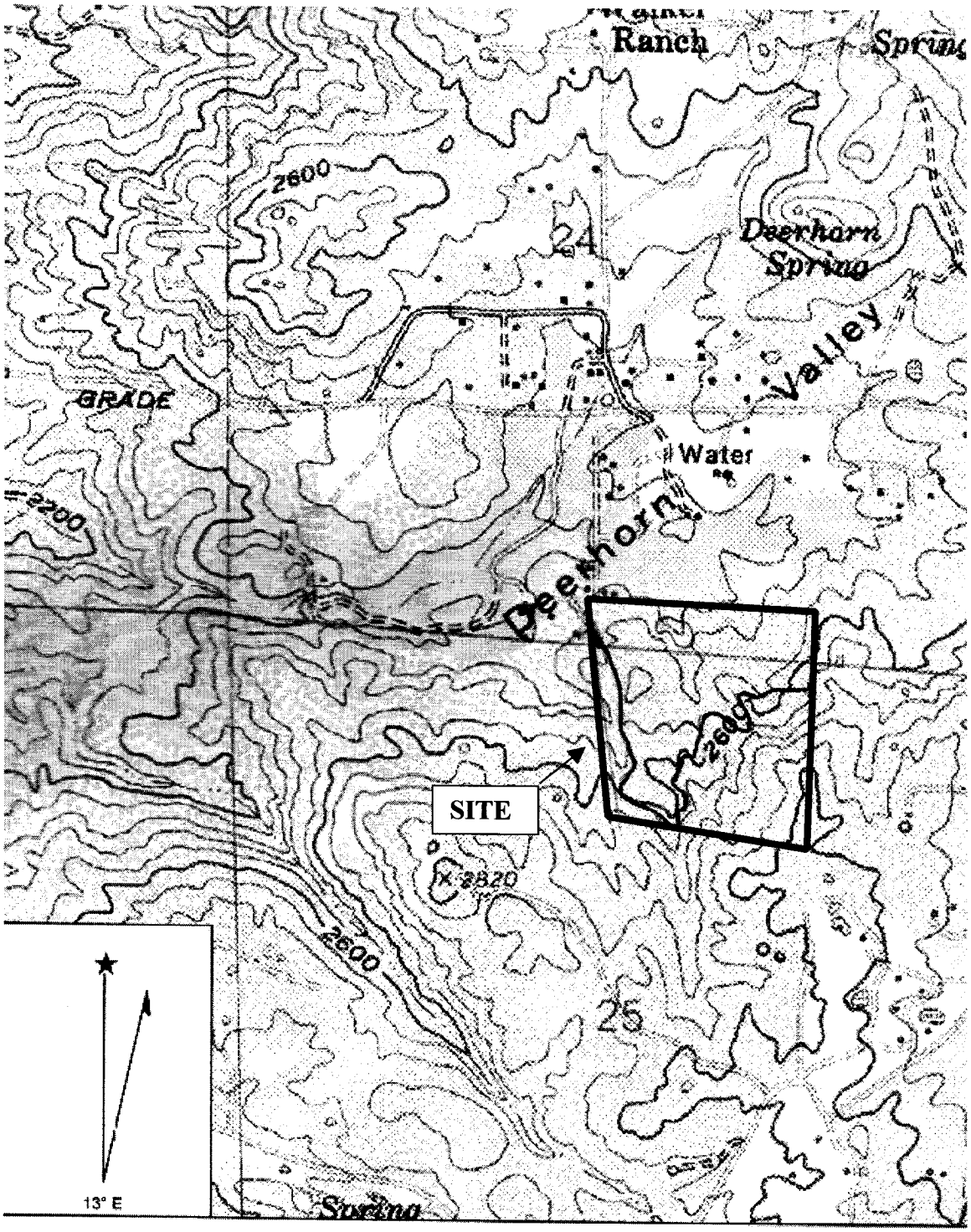


Figure 1
Regional Location Map



Scale: 1 inch = 1000 feet

USGS Barret Lake 7.5' Quad

RC Biological Consulting

Vicinity Map
Chase-Van Cleve Property

Figure 2

Article V1.A.1.a states "The impact site is a BRCA if it meets one or more of the following criteria;"

i. The land is shown as Pre-approved Mitigation Area on the wildlife agencies' Pre-approved Mitigation Area map.

The land is not shown as a Pre-approved Mitigation Area on the wildlife agencies Pre-approved Mitigation Area map. The site is not located within 1 mile of a pre-approved mitigation area or biological easement based on the information provided to the applicant at the time of their pre-application meeting with the County.

ii. The land is located within an area of habitat which contains biological resources that support or contribute to the long-term survival of Sensitive Species, which determination is based upon a biological analysis approved by the Director, and is adjacent or contiguous to preserved habitat that is within the Pre-approved Mitigation Area on the wildlife agencies' Pre-approved Mitigation Area map (See enclosed Map).

Although two sensitive bird species, the red-tailed hawk (*Buteo jamaicensis*) and western bluebird (*Sialia mexicana*), both County sensitive species were identified onsite, the site does not support a significant population of these sensitive species that would contribute to their long-term survival. In addition, one sensitive plant species was identified onsite, the Engelmann Oak, a County list 4 species. The site is not located adjacent to or contiguous with a Pre-approved Mitigation Area.

The site does not meet this criterion.

iii. The land is part of a regional linkage/corridor. The site is land that contains topography that serves to allow for the movement of all sizes of wildlife, including large animals on a regional scale; and contains adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife.

The site has not been identified as the primary linkage/corridor between the northern and southern regional populations of the California gnatcatcher in the population viability analysis for the California gnatcatcher, MSCP Resource Document Volume II, Appendix A-7 (Attachment I to the BMO).

The site does not provide topography that serves to allow for the movement of all sizes of wildlife (especially large mammals) on a regional scale. Although some birds may use small isolated areas as stepping stones, it is highly unlikely that large mammals such as mountain lion could use the site. The site does not contain adequate vegetative cover to provide visual continuity so as to encourage the use by wildlife as a corridor. In summary, the site may be used as a local corridor for wildlife movement of small animals, but does not serve as regional corridor for all sizes of wildlife.

The site does not meet this criterion.

iv. The land is shown on the habitat evaluation map (Attachment J to the BMO) as very high or high and links significant blocks of habitat (except that land which is isolated or links small, isolated patches of habitat and land that has been affected by existing development to create adverse edge effects shall not qualify as BRCA).

The site is mapped as medium habitat value.

The site does not meet this criterion.

v. The land consists of or is not within a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species.

The land does not consist of a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species. The site is located within a block of habitat greater than 500 acres, however the site does not contribute to the conservation of sensitive species. The site does not meet this criterion.

vi. The land contains a high number of sensitive species and is adjacent or contiguous to surrounding undisturbed habitats; or contains soil derived from the following geologic formations: gabbroic rock; metavolcanic rock; clay; and coastal sandstone, which are known to support sensitive species.

The land does not contain a high number of sensitive species, however it is adjacent or contiguous to surrounding undisturbed habitats. The site does not contain soils from the geologic formations identified. The site does not meet this criterion.

3.0 SURVEY METHODOLOGY

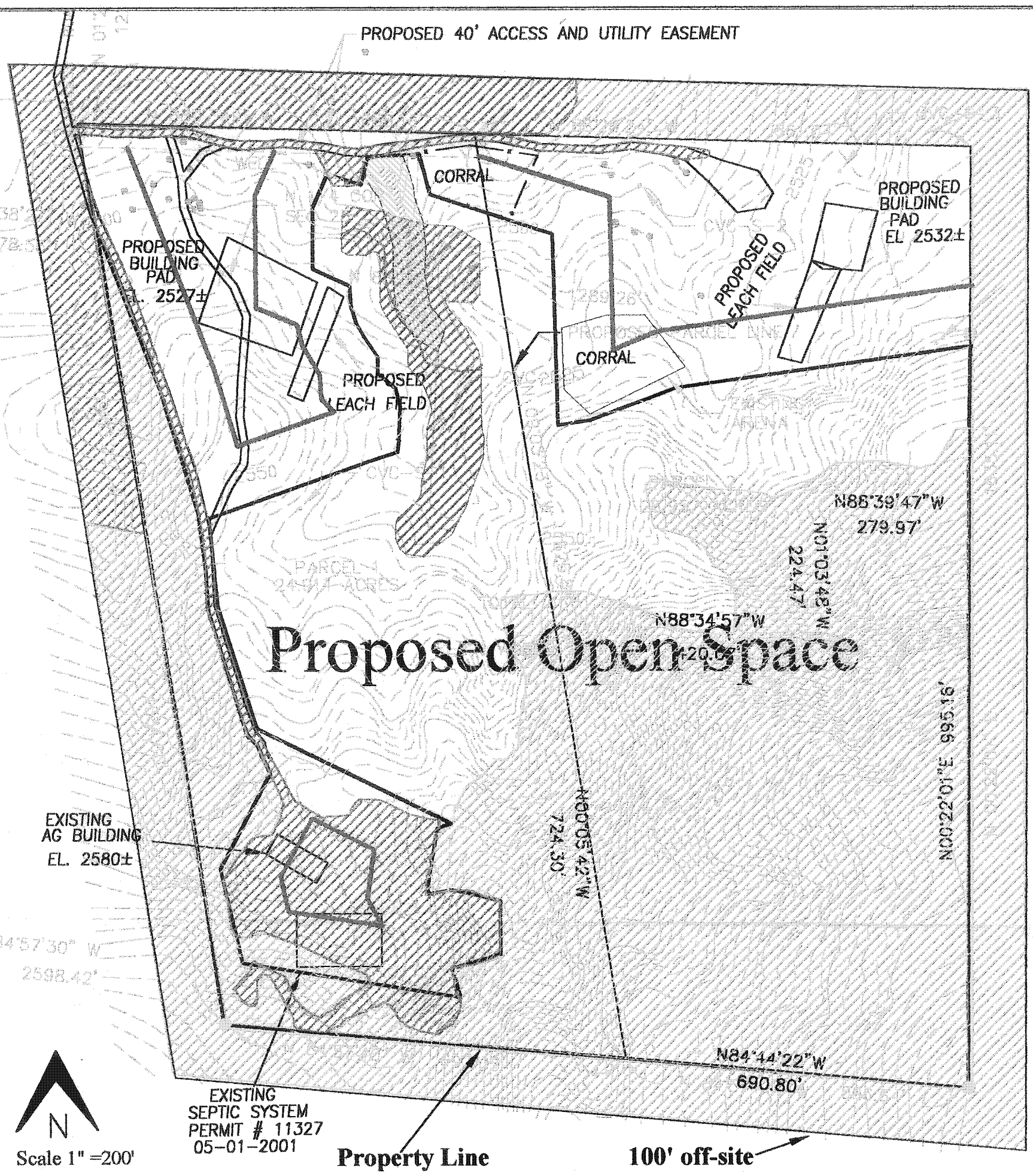
The site was surveyed on foot and habitat mapped (Figure 3). Mapping was performed following the Biological Resources Mapping Requirements (County 2002). Wildlife species were identified directly by sight or by vocalizations, and indirectly by scat, tracks, or burrows. Field notes were maintained throughout the surveys and species of interest were mapped. Surveys focused on sensitive plant and wildlife species and all species observed were noted. The presence or absence of suitable habitat for sensitive species was also identified. The primary focus of the survey was to document and map the size, location, and general quality of all habitat types and the presence or potential presence of any sensitive resources (plant or wildlife) on-site. In addition, a focused presence/absence survey was performed for the quino checkerspot butterfly (*Euphydryas editha quino*). Ten (10) flight survey visits were conducted by Darren Scott Smith (DSS) (Permit #TE-007628) and Robin Church (RC) (an authorized sub-permitee of #TE-007628), for the presence of the federally-listed endangered quino checkerspot butterfly (QCB).

Table 1 Surveys performed on the Chase/Van Cleve Property						
Date	**Time**	**Survey**	**Temperature (°F)**	**Sky**	**Wind (mph)**	**Observers**
10/28/02	10:20 – 12:00	Vegetation Mapping	67°	Clear	0-5	RC
1/31/03	10:00-12:30	General QCB	75°-82°	Clear	0-5	RC, DSS
2/3/03	10:50-1:25	RPO Delineation	63°-65°	Clear	0-5	RC
2/7/03	9:15-10:30	General	67°	Clear to Cloudy	0-5	RC
2/08/03	9:35-12:50	QCB	62°-65°	Partly cloudy	0-5	DSS
2/15/03	9:45-1:10	QCB	62°-66°	Partly Cloudy	0-5	DSS
2/22/03	11:05-14:10	QCB	67°-70°	Clear	0-5	DSS
3/02/03	10:10-12:55	QCB	63°-66°	Partly Cloudy	0-5	DSS
3/8/03	10:15-1:10	QCB	64°-67°	Hazy	0-5	DSS
3/14/03	1:30-4:00	QCB	66°-68°	Clear	0-5	DSS
3/22/03	9:50-12:50	QCB	63°-72°	Clear	0-5	DSS
3/30/03	9:15-12:30	QCB	69°-78°	Clear	0-8	DSS
4/06/03	3:00-5:30	QCB	60°-62°	Clear	0-5	RC
7/11/03	3:00 – 4:00	Re-map	88°	Clear	0-5	RC

Nomenclature for this report conforms to Hickman (1993), Munz (1974) or Beauchamp (1986) for plants, Holland (1986) and Oberbauer (1996) for plant communities and habitat types, American Ornithological Union (AOU 1982) for birds, Jennings (1983) and Stebbins (1985) for reptiles and amphibians, Jones (1992) for mammals, and Powell (1979) for insects.

4.0 RESULTS

The following discussion summarizes the existing biological resources on-site including habitats, vegetation and wildlife. Habitats are depicted on Figure 3.



Legend:

RPO Wetland

RPO Wetland Buffer

Engelmann Oak

Dense Coast Live Oak Woodland non-impacted - 0.84 acres (Habitat Code: 71162)

Dense Coast Live Oak Woodland-impacted - 0.83 acres (Habitat Code: 71162)

Southern Mixed Chaparral - unimpacted - 21.07 acres (Habitat Code: 37121)

Southern Mixed Chaparral - impacted - 25.59 acres (Habitat Code: 37121)

Disturbed Habitat - 3.54 acres (Habitat Code: 11300) 3.54 acres

Non-Native Grassland - Off- site (Habitat Code: 42200)

Limited Building Zone - 100'

Proposed Open Space

RC

Biological Consulting

Biological Resources Map Chase - Van Cleve Property

Figure 3

4.1 Vegetation

Habitat descriptions are based on the County of San Diego's Biological Mapping Requirements (County 2002) and Terrestrial Vegetation Communities in Sand Diego County based in Holland's Descriptions (Oberbauer 1996), however, it has been shown that habitats on the project sites in San Diego County are often not pristine and rarely fit into one description. Therefore the best-fit definition based on the County's current descriptions and dominant plant species has been applied. Three vegetation types occur within the project site, dense coast live oak woodland, southern mixed chaparral, and disturbed habitat. In addition, A Resource Protection Ordinance (RPO) wetland occurs onsite. The habitats and wetland limits are depicted in Figure 3. A complete list of plant species observed on-site is included in Appendix A.

Dense Coast Live Oak Woodland (Habitat Code 71162)

The dense coast live oak woodland onsite is composed of mature coast live oaks (*Quercus agrifolia*) that are located on the banks of a narrow, steep sided drainage. The sides and bottom of the drainage are primarily composed of large rocks. An ephemeral stream occurs within the bottom of the drainage that constitutes an RPO wetland which is discussed in below. The oaks are primarily located outside of the limits of the wetland forming a dense canopy that overhangs the stream. Portions of the understory for this habitat on-site have been removed. Approximately 0.84 acres of un-impacted coast live oak woodland and 0.83 acres of impacted oak woodland occurs onsite.

Southern Mixed Chaparral (Habitat Code 37121)

Southern mixed chaparral covers approximately 21.07 acres of the site and consists of tall-statured stands (between 3 and 5 meters) of a variety chaparral species. No single species are dominant but several species are common: holly-leaf cherry (*Prunus ilicifolia*), toyon (*Heteromeles arbutifolia*), birch-leaved mountain-mahogany (*Cercocarpus betuloides*), chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus berberidifolia*), woolly-leaved ceanothus (*Ceanothus tomentosus*), chaparral whitethorn (*C. leucodermis*), big berry manzanita (*Arctostaphylos glauca*), Eastwood's manzanita (*Arctostaphylos glandulosa*), honeysuckle(*Lonicera supspicata*), and heart-leaved penstemon (*Kekiella chordifolia*).

Approximately 25.59 acres of southern mixed chaparral was recently mechanically disturbed and now supports stump sprouting individuals of birch-leaved mountain mahogany, scrub oak, and several of the ceanothus and manzanita species. Several of the cleared patches now support low cover of sub-shrubs including flat-top buckwheat (*Eriogonum fasciculatum*), and deer weed (*Lotus scoparius*), with a few individuals of white sage (*Salvia apiana*) and black sage (*Salvia mellifera*). The disturbance also allowed for growth of many annual species typically of a post-fire flora including blue dicks (*Dichelostemma capitatum*), golden yarrow (*Eriophyllum confertiflorum*), California sun cup (*Camissonia bisorta*), strigose deer weed (*Lotus strigosus*), grab lotus (*Lotus hamatus*), Lindley's annual lupine (*Lupinus bicolor*), several species of popcorn flower (*Cryptantha/Plagiobothrys* spp.), California poppy, and baby blue-eyes (*Nemophila menziesii*). In addition, several individual coast live oak and Engelmann oak

occur within the impacted northern mixed chaparral. Large rock outcrops occur within both the non-impacted and impacted chaparral onsite.

Disturbed Habitat (Habitat Code: 11300)

The disturbed habitat onsite consists of the areas improved as part of the agricultural building and use of the property including an SDG&E easement for the power lines along the south property line. Disturbed habitat is composed primarily of bare ground and improved areas. Steep portions of the disturbed areas were recently hydroseeded with alyssum (*Lobularia maritima*), African daisy (*Gazania* sp.), California poppy, flax (*Linaria* sp.), and woolly plantain (*Plantago ovata*). The disturbed habitat composes approximately 3.54 acres of the site.

Resource Protection Ordinance (RPO) Wetland

A RPO wetland delineation was performed to identify the portion of the drainage onsite meets the criteria established by the RPO to define County wetlands. The criteria for the delineation of RPO wetlands is discussed in Section 5.0, Regulatory Requirements, below. The limits of the RPO wetland are depicted on Figure 3.

Rock Outcrops

Rock outcrops are considered a unique microhabitat by the County. Numerous rock outcrops occur onsite. Rock outcrops add diversity to the vegetation communities by providing a discrete ecological niche for species not found elsewhere in the surrounding habitat. Rock outcrops also provide cover and potential nesting cavities for several wildlife species. Some reptile species are attracted to the sun-warmed surfaces of the rocks, and birds use boulders as perches and vantage points.

4.2 Wildlife

A total of forty-three wildlife species were identified onsite. These included sixteen invertebrate species, four reptile species, eighteen bird species, and five mammal species. A complete list of wildlife species observed on-site is included as Appendix B.

Granite spiny lizards (*Sceloporus orcutti*) and sagebrush lizards (*Sceloporus graciosus*) were commonly observed sunning on the large rocks throughout the site. Two additional reptile species were observed onsite, the side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*). Birds that would typically occur in the habitats onsite were observed including Anna's hummingbird (*Calypte anna*), California thrasher (*Toxostoma redivivum*), rufous-sided towhee (*Pipilo erythrophthalmus*), lesser goldfinch (*Carduelis psaltria*), and northern flicker (*Colaptes auratus*). Additionally two species which are winter migrants to the area were observed, the western bluebird (*Sialia mexicana*) and white-crowned sparrow (*Zonotrichia leucophrys*). One red-tailed hawk (*Buteo jamaicensis*) was observed overhead. Mammals detected onsite include coyote (*Canis latrans*) and California ground squirrel (*Spermophilus beecheyi*).

4.3 Sensitive Resources

Sensitive or special interest plant and wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive habitats, as identified by these same groups, are those which generally support plant or wildlife species considered sensitive by these resource protection agencies or groups. Sensitive species and habitats are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, degradation due to development or invasion by non-native species, or a combination of all of these factors.

In addition to RPO and the MSCP the following were used in the determination of sensitive biological resources: U.S. Fish and Wildlife Service (USFWS) (USFWS 2001); California Department of Fish and Game (CDFG) (CDFG 1999, 2000 and 2001); and California Native Plant Society (CNPS 2001). An explanation of the sensitivity codes used in this report are included in Appendix E.

Applicable Resource Conservation Plans and Ordinances

In San Diego County, regulations have been adopted which define and provide protection to certain types of sensitive biological resources as follows:

Resource Protection Ordinance (RPO)

The purpose of the RPO is to protect sensitive resources and prevent their degradation and loss. The sensitive resources protected by the RPO include wetlands, wetland buffer areas, and sensitive habitat lands, which are defined as follows:

> "Wetland" areas include lands which are transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are "wetlands":
>
> a) At least periodically, the land supports predominantly hydrophytes (plants whose habitat is water or very wet places);
> b) The substratum is predominantly undrained hydric soil; or
> c) The substratum is nonsoil and is saturated with water or covered by water at some time during the growing season of each year.

"Wetland buffer" areas include lands which provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community.

"Sensitive habitat lands" include those which support unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants, including the area which is necessary to support a viable population of any of

these species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning corridor.

Multiple Species Conservation Program (MSCP) and Biological Mitigation Ordinance (BMO)

In response to the continued loss of sensitive biological resources, especially coastal sage scrub, the County adopted the MSCP in 1997. The proposed project must conform to the MSCP Subarea Plan, and the project must demonstrate that it has incorporated avoidance measures to meet the preserve design requirements of the Plan. To implement the MSCP Subarea Plan, the County enacted the BMO. Habitats are classified in different "Tier" levels that require different levels of mitigation. Application of the BMO to individual projects is the method by which the County will achieve the conservation goals set forth in the MSCP. Mitigation requirements for different habitat types are based on the location of both the impact and the proposed mitigation. Impacts within core habitat areas or pre-approved mitigation areas require higher mitigation ratios. Conversely, more credit is allowed for preservation or mitigation within core habitat areas or pre-approved mitigation areas.

4.3.1 Sensitive Habitats

Dense coast live oak woodland, northern mixed chaparral and RPO wetlands would be considered sensitive habitats. Each of these are discussed below.

Dense Coast Live Oak Woodland (Tier I)

Dense coast live oak woodland is considered a sensitive habitat within the BMO. All oak woodlands are classified as a Tier I habitat, or the most sensitive.

Southern Mixed Chaparral (Tier III)

Although still a relatively plentiful habitat, southern mixed chaparral is considered a sensitive habitat within the BMO. This habitat is classified as Tier III habitat.

Resource Protection Ordinance Wetland

Wetlands are protected by the County, CDFG, ACOE, RWQCB, USFWS, and EPA. Wetland habitats, in general, are considered sensitive biological resources because they have been dramatically reduced in San Diego County and across the nation and typically represent wetlands. Due to the regional and national loss of wetland habitat, resource agencies have a "no net loss policy" for wetlands. Wetland habitat is important because it has high levels of food and nutrients, high wildlife diversity, and it is a valuable water source in the arid climate of Southern California. This habitat's sensitivity and its ultimate reduction is evidenced by the large number of declining bird species closely associated with, or dependent on this habitat type for reproduction and ultimate success.

A RPO wetland delineation was performed to delineate the limits of the drainage that meet the criteria established by RPO. The limits of this boundary are indicated on Figure 3.

4.3.2 Sensitive Plants

Sensitive or special interest plant species are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive plant species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive plant species include: CDFG (1999) and the California Native Plant Society Electronic Inventory (CNPS 2001).

Sensitive plant surveys were performed at the same time as the focused QCB surveys. Since both require walking intensive transects all plants observed during the surveys were noted. No rare, threatened, or endangered plant species were observed on-site. One sensitive plant species was observed onsite, the Engelmann Oak (*Quercus engelmannii*). This species is discussed below. Twenty-eight sensitive plant species are known from the area. All of the species would have been observable during the surveys performed onsite except for Peninsular spineflower (*Chorizanthe leptotheca*), delicate clarkia (*Clarkia delicata*), Otay Mountain lotus (*Lotus crassifolius* var. *otayensis*) and felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*). These four species are annuals that would not have been observable during the surveys and have a moderate potential to occur onsite. Otay Mountain lotus and felt-leaved monardella are County List A species. Delicate clarkia is a County list B species. Peninsular spineflower is a County Group D species. Sensitive plant species with the potential to occur on-site are discussed in Appendix C.

Quercus engelmannii (Engelmann oak)

Quercus engelmannii, a semi-deciduous oak with a distinctive twisted growth pattern and bluish-green leaves, is a County list D and CNPS List 4 species (limited distribution) with a R-E-D ranking of 1-2-2. This species can occur in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland habitats; the center of its distribution is cismontane San Diego County. Engelmann oaks are sensitive to land management practices such as fire, and their small, disjunct woodlands are highly susceptible to extirpation. Individual trees typically live from 50 to 80 years; however, a few trees in every woodland may be over 150 years old. Approximately 23 individual *Q. engelmannii* oaks occur within the northern portions of the site (Figure 3).

Narrow Endemic Plant Species

No narrow endemic plant species were observed onsite. Dunn's mariposa lily (*Calochortus dunnii*), Lakeside ceanothus (*Ceanothus cyaneus*), Palmer's goldenbush (*Ericameria palmeri* ssp. *palmeri*), Gander's pitcher sage (*Lepichinia ganderi*), and Dehesa nolina (*Nolina interrata*), all narrow endemics within the MSCP, were

determined to have a low potential to occur onsite since they would have been observable during the surveys and were not detected onsite (Appendix C).

4.3.3 Sensitive Animals

Sensitive or special interest wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive species are so called because of their limited distribution, restricted habitat requirements, or particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive biological resources include: USFWS (USFWS 2001), CDFG (CDFG 2000 and 2001). Additional species receive federal protection under the Bald Eagle Protection Act and the Migratory Bird Treaty Act and Convention for the Protection of Migratory Birds and Animals.

The CDFG also lists species as threatened or endangered, or candidates for listing as threatened or endangered. Lower sensitivity animals may be listed as "species of special concern" (CDFG 2000). The CDFG further classifies some species under the following categories: "fully protected", "protected furbearer," "harvest species," "protected amphibian," and "protected reptile." The designation "protected" indicates that a species may to be taken or possessed except under special permit from the CDFG; "fully protected" indicates that a species can be taken only for scientific purposes. The designation "harvest species" indicates that take of the species is controlled by the state government.

No rare, threatened, or endangered animal species were observed on-site. Two sensitive animal species, the red-tailed hawk and the western bluebird were observed onsite. These are discussed below.

Red-tailed Hawk (*Buteo jamaicensis*)

The red-tailed hawk is a raptor. Raptors are large predatory or scavenger birds that typically require tall trees for perching and nesting, with adjacent open grasslands necessary for foraging. Raptor species are protected, especially during their critical nesting and wintering stages. Raptors are protected under the CDFG California Raptor Protection Act (Title 14, Section 670). One red-tailed hawk (*Buteo jamaicensis*) was observed overhead. The red-tailed hawk is a County sensitive species.

Western Bluebird (*Sialia mexicana*)

The western bluebird is a common resident and winter visitor, that occurs throughout the year in the foothill and mountain zones of the county. This species uses edge habitats preferring oak savanna or coniferous forest where they adjoin meadows or grasslands. Breeding habitat includes trees with lookout perches and nest holes near open country for foraging. (Unitt 1984). The western bluebird is a county sensitive species. Two western bluebirds were observed onsite.

Thirty-five sensitive species with the potential to occur onsite are discussed in Appendix D. Of the thirty five sensitive species with the potential to occur onsite, one was observed, the western bluebird, one has a high potential to occur onsite, the turkey vulture (*Cathartes aura*), and seventeen have a moderate potential to occur. The turkey vulture was observed soaring over the adjacent property and could be expected within this site. The turkey vulture is a county sensitive species. The species with a moderate potential to occur onsite include coast patch-nosed snake (*Salvadora hexalepis virgultea*), coastal rosy boa (*Charina trivirgata roseofusca*), coastal western whiptail (*Cnemidophorus tigris multiscultatus*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), San Diego ringneck snake (*Diadophus punctatus similes*), Bell's sage sparrow (*Amphispiza belli belli*), Cooper's hawk (*Accipiter cooperii*), golden eagle (*Aquila chrysaetos*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), greater western mastiff bat (*Eumops perotis californicus*), long eared myotis (*Myotis evotis*), mountain lion (*Felis concolor*), pallid bat (*Antrozous pallid*), ringtail (*Bassariscus astutus*), San Diego woodrat (*Neotoma lepida intermedia*) small-footed myotis (*Myotis leibii*) and southern mule deer *(Odocoileus heminonus*). All of these species except the San Diego ringneck snake, mountain lion, ringtail and southern mule deer are federal and/or state species of concern. Of these species the mountain lion is a protected species by CDFG and the rest are county sensitive species.

Two federal and/or state listed species have a low potential to occur onsite. These include the Quino checkerspot butterfly (*Ephydryas editha quino*) and arroyo southwestern toad (*Bufo micrposcaphus californicus*). Each of these species is discussed below.

Quino Checkerspot Butterfly (*Euphydryas editha quino*)

Status: Federally listed as Endangered.

A focused survey for the federally endangered quino checkerspot butterfly (QCB) was conducted onsite by USFWS permitted biologists Darren Scott Smith and authorized sub-permitee Robin Church (permit # TE-007628). A full copy of the 45-day report submitted to the USFWS is included as Appendix F of this report. Survey methods followed those outlined in the Year 2002 Survey Protocol for the Quino checkerspot butterfly (USFWS 2002). Surveys consisted of meandering transects within all of the open native vegetation on site, approximately 30 acres, with proportionally greater time was spent within areas supporting nectar plants, potential host plants, and on the minor ridges. The primary larval host plant, dwarf plantain (*Plantago erecta*) was not observed onsite. A closely related species, woolly plantain (*Plantago ovata*), was introduced to the site in 2002 for erosion control and occurs in several populations around the temporary building. Three other plant species that may support larval QCB were also observed onsite but in very small 'populations': common owl's clover (*Castilleja exserta*; three individuals), chaparral beard-tongue (*Kekiella antirhinioides;* a single plant) and Nuttal's snapdragon (*Antirrhinum nuttallianum; ca. ten individuals*). Potential nectar sources for QCB were plentiful including moderately dense populations of popcorn flower (*Cryptantha/Plagiobothrys* spp.), strigose deer weed, chia (*Salvia columbariae*), blue dicks (*Dichelostemma pulchellum*), suncups, and several annuals in the brassicaceae (*Sisymbrium* spp. *Descurainia pinnata*) and (*Caulanthus heterophyllus*). Approximately fourteen butterfly species were observed onsite (Appendix B). Identifications of the

Southern Blue, California White, and Felder's orangetip were tentative for the site as voucher specimens were not collected and the identifications were not certain.

QCB was not observed onsite during the survey. Although several potential host plants and numerous nectar plants were observed the site, it does not appear similar to habitat that supports QCB populations on other sites in the region. The site lacks the primary host plant, dwarf plantain. The only large population of a potential host plant (*Plantago ovata*) was recently introduced. The site does not support clay soils or well developed cryptogrammic crusts. Vegetation on the site is fairly mesic, supporting primarily tall-statured chaparral species. Any of the areas supporting sparse or lower-statured vegetation were, until recent mechanical disturbance, covered by tall-statured vegetation. Additionally there are no prominent hill tops or ridgelines and there is little land with south-facing aspect that is not partially shaded by the more prominent north-facing slope. These site conditions generally support the negative result of this survey. Because native vegetation is dynamic over time and QCB populations are spatially and temporally dynamic it is difficult to definitively determine its absence. Based on this survey, the current site conditions, and observations of occupied QCB habitat, the probability of QCB occurring the Chase/Van Cleve Property is low.

Arroyo southwestern toad (*Bufo micrposcaphus californicus*)

Status: Federally listed as Endangered, State Species of Special Concern

The arroyo southwestern toad was listed as federally endangered in December 1994. This species is a small toad (2 to 3 inches), light greenish gray or tan with warty skin and dark spots. This species is restricted to rivers that have shallow, gravelly pools adjacent to sandy terraces. Breeding occurs on large streams with persistent water from March to mid-June. Eggs are deposited and larvae develop in shallow pools with minimal current and little or no emergent vegetation and with sand or pea gravel substrate overlain with flocculent silt. After metamorphosis (June or July), the juvenile toads remain on the bordering gravel bars until the pool no longer persists. Juvenile and adults forage for insects on sandy stream terraces that have nearly complete closure of cottonwoods, oaks, or willows and almost no grass and herbaceous cover at ground level. Adult toads excavate shallow burrows on the terraces where they shelter during the day when the surface is damp or during longer intervals during the dry season. (Federal Register 1994) The drainage on site is ephemeral and as such does not provide suitable habitat for any of the life stages of the arroyo southwestern toad. There is a low potential for this species to occur onsite.

5.0 REGULATORY REQUIREMENTS PERTAINING TO WETLANDS

The limits of jurisdiction for each agency is also discussed below.

Army Corps of Engineers (ACOE) – Clean Water Act

Pursuant to Section 404 of the Clean Water Act, any on-site wetlands and waters of the U.S., would be subject to permit provisions regulating activities within their boundaries. These provisions are enforced by the ACOE, as well as the EPA, with technical input from the USFWS. Three factors are considered in the designation of wetlands: the presence of hydrophytic vegetation, hydric soils, and site hydrology. According to the latest ACOE methodology, all three wetland indicators must be present to make a jurisdictional ruling (Environmental Laboratory 1987). Areas indicated as wetlands by all three factors during the rainy season may lack the indicators of hydrology and/or vegetation during the dry season, or the vegetation may have been altered or removed through human disturbance. Such areas may still be regarded as wetlands by resource agencies.

In addition, the ACOE has jurisdiction over "waters of the United States". Waters of the United States are defined in 33 CFR part 328 (referred to as "waters"). The lateral limits of the jurisdiction of waters maybe divided into three categories, territorial seas, tidal waters and non-tidal waters. 33 CFR part 328.3 provides the definition of waters of the United States as follows:

(a) The term *waters of the United States* means

(1) all waters which are currently used, or were used in the past, or maybe susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are or could be used for industrial purpose by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in (a) (1) through (4) of this section;

(6) The territorial seas

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

Waste treatment systems, including treatments of ponds or lagoons designed to meet the requirements if CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

(8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding the CWA remains with the Environmental Protection Agency (EPA).

(b) The term *wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(c) The term *adjacent* means bordering, contiguous or neighboring. Wetlands separated from other waters of the United States by man made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

(d) The term *high tide line* means the line of intersection of the land with the water's surface to the maximum height reached by a rising tide.....

(e) The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(f) The term *tidal waters* means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun....

The limits of jurisdiction in non-tidal waters is defined in 30 CFR part 328.4 (c). When non-tidal waters occur in the absence of adjacent wetlands, the jurisdiction extends to ordinary high water mark. Based on the above definition of waters of the United States and limits of jurisdiction, Waters of the U.S. occur onsite and would be located at the same location as the RPO wetland line identified on Figure 3.

California Department of Fish and Game – Streambed Alteration Program

The CDFG regulates wetlands under Section 1601/1603 of the California Fish and Game Code through their Streambed Alteration Agreement Program. Any alteration of any stream course within the State of California requires a Streambed Alteration Agreement from the CDFG. Section 1601 pertains to public projects where section1603 applies to private projects and specifically states: "It is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of

any river, stream or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity..."

A stream is defined by the California Code of Regulations (14 CCR 1.72) as a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic wildlife. This includes watercourses having a surface or subsurface flow that supports or has supported riparian habitat.

The limits of CDFG jurisdiction are defined in the code (Section 1601/1603) as the bed, channel, or bank of any river, stream or lake designated by the department in which there is at any time existing fish or wildlife resource or from which these resources derive benefit ....

The CDFG jurisdiction would be larger then the RPO wetlands and ACOE wetlands onsite. The CDFG jurisdiction would extend to the limits of the top of bank.

County of San Diego Resource Protection Ordinance

The County of San Diego Resource Protection Ordinance defines wetlands under Article II, item 16. as: "All lands which are transitional between terrestrial and aquatic where the water table is usually at or near the surface or where the land is covered by water. All lands having one or more of the following attributes are 'wetlands":

a. At least periodically, the land supports predominately hydrophytes;
b. The substratum is predominantly undrained hydric soils; or
c. The substratum is nonsoil and is saturated with water or covered by water at some time during the growing season each year.

The resource protection ordinance wetlands were mapped using the presence of any of one criteria listed above. The majority of the length of creek actually is devoid of hydric vegetation therefore hydrology was used to identify RPO wetland limit. This portion lacked hydrophytic vegetation but had evidence of scour. The ordinary high water mark or assumed limits of the one year flood were used to delineate this portion. The ordinary high water mark was determined to be a bench or bank that occurred within the outer bank. The second criteria used to define the limits of the RPO wetlands was the predominance of hydrophytic vegetation. "Predominance" was interpreted to mean at least 50% of the cover was formed by hydrophytes. The 1988 National List of Wetland Plants for California (ACOE 1988) was used as a reference to determine whether a plant was considered hydrophytic.

The RPO limit was mapped based on the outer limit of the hydric vegetation or ordinary high water mark, whichever was larger. Hydrophytic plant species do not provide a predominance vegetation any where onsite. The only hydric plant within the RPO wetland are a few individual mulefat (*Bacharris salicifolia*). This species has a wetland indicator of FACW- which means that this species usually occurs within wetlands (67%

to 99%) of the time, but is occasionally found in non-wetlands. The minus sign (-) indicates that as regional indicator this species has a frequency toward the lower end of the range, i.e. found less frequently in wetlands (ACOE 1988).

6.0 ANTICIPATED PROJECT IMPACTS

Impacts on biological resources can be categorized as either direct, indirect, or cumulative. Direct impacts are a result of project implementation, and generally include: the loss of vegetation and sensitive habitats and populations; the introduction of non-native species which may out-compete and displace native vegetation; activity-related to mortalities of wildlife; loss of foraging, nesting or burrowing habitat; destruction of breeding habitats; and fragmentation of wildlife corridors. Indirect impacts occur as a result of the increase in human encroachment in the natural environment and include: off-road vehicle use which impacts sensitive plant or animal species; harassment and or collection of wildlife species; intrusion and wildlife mortality by domestic pets in open space areas following residential development; increased noise and lighting; and inadvertent increased wildlife mortalities along roads. Cumulative impacts occur as a result of on-going direct and indirect impacts for unrelated or fragmented projects overall. Cumulative impacts are assessed on a regional basis and determined the overall effect of numerous activities on a sensitive resource over a larger area.

Generally, there are three levels of adverse impacts associated with biological resources: significant, locally important, and not significant. The County of San Diego adopted the regional Multiple Species Conservation Program and Subarea Plan in 1997. To implement the Subarea Plan the County enacted the Biological Mitigation Ordinance. These documents identify biological resources and, indirectly, thresholds for significance. Habitats are classified in different tier levels which require different levels of mitigation. Habitats within Tiers I to III, require mitigation under the Biological Mitigation Ordinance and therefore are considered significant.

These levels of impacts were applied to the project site and are used below in the discussion of specific potential impacts. Figure 3 details the proposed impact areas.

6.1 Proposed Project and Potential Impacts

The proposed project is a minor subdivision of a 51.87 gross acre parcel into two residential lots of 24.91 and 26.95 acres. The proposed project also includes a 34.63acre biological open space easement. No off-site improvements will occur according to the conceptual grading plan (Appendix G). The project is located within the Metro-Lakeside-Jamul portion of the MSCP. The site is not a BRCA. Table 2 identifies the existing habitats on-site.

Table 2 Habitats on the Chase/Van Cleve Property		
Habitat	**Tier**	**Acreage**
Dense Coast Live Oak Woodland – Un-impacted	Tier I	0.84
Dense Coast Live Oak Woodland – Impacted	Tier I	0.83
Southern Mixed Chaparral – Un-impacted	Tier III	21.07
Southern Mixed Chaparral – Impacted	Tier III	25.59
Disturbed	Tier IV	3.54
Total		**51.87**

Figure 3 identifies the proposed open space and limited building zones for the project. All areas not included within the open space are considered impacted. The limited building zone has been established as 100 feet as required by County Ordinance 9111. Pursuant to the letter dated July 15, 2003 from the San Diego Rural Fire Protection District (Appendix H) the Limited Building Zone Easement language should include the following exception:

> " The easement shall permit the construction or placement of structures located no less than 50 feet from the nearest biological open space easement boundary provided that the structures meet the minimum Fire-Resistive Construction Requirements as defined by the Fire Protection Authority (FPA) having authority over the property and that the FPA has approved in writing a reduction in the vegetation clearing/fuel modification requirements so that they will not be required within any portion of the biological open space easement."

Table 3 below identifies the acreage of impacts by habitat type and required mitigation for those impacts. Mitigation ratios are based on the assumption that neither the site nor the mitigation land is located within a BRCA. The ratios are the same as those set forth in Attachment M of the BMO.

Table 3 Impacts by Habitat			
Habitat	**Impact Acreage**	**Mitigation Ratio (On-site)**	**Mitigation Acreage**
Dense Coast Live Oak Woodland (Tier I)	0.83	2:1	1.66
Southern Mixed Chaparral (Tier III)	25.93	1:1	25.93
Disturbed	3.54	0	0

6.2 Significance Of Impacts

The following section discusses the significance of potential impacts to the resources onsite.

Dense Coast Live Oak Woodland (Tier I)

Approximately 1.67 acres of dense coast live oak woodland occurs onsite. The understory within approximately 0.83 acres of this habitat has been removed. No new impacts are proposed as a result of the proposed project and the entire oak woodland will be included within the biological open space onsite. Additionally a buffer ranging from 25 feet to 50 feet has been provided outside of the drip line of the canopy. Where the buffer is less then 50 feet is a result of the presence of previously approved improvements on the site. The southern mixed chaparral within the buffer has been mechanically disturbed prior to the proposed project. Impacts to approximately 0.83 acres of oak woodland understory would be considered significant and require mitigation at a 2:1 ratio in accordance with the BMO.

Southern Mixed Chaparral (Tier III)

Approximately 25.59 acres of the northern mixed chaparral onsite has already been removed. An additional 0.34 acres is included within the proposed impacted area near the existing building. The total impacts to southern mixed chaparral as a result of the proposed project are 25.93 acres. These impacts would be considered significant and require mitigation at a 1:1 ratio in accordance with the BMO.

Disturbed Habitat (Tier IV)

Impacts to approximately 3.54 acres of disturbed habitat would not be considered significant and would not require mitigation.

RPO Wetland and Wetland Buffer

The RPO wetland and the proposed oak woodland/RPO buffer constitute 1.65 acres of dense coast live oak woodland and disturbed northern mixed chaparral. RPO defines "Wetland buffer" areas as lands which provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community. Neither RPO or the BMO specify a required buffer width, however, County Policy as stated in the Biological Mapping Requirements (June 2002) is that the County generally requires buffers a minimum of 25 feet and a maximum of 200 feet. Factors to consider when determining the appropriate width of the buffer include: existence of hydrophytic vegetation, condition of the existing wetland, whether the wetland/buffer serve as a wildlife corridor, existence of sensitive species, connectivity and condition of the wetland up and down stream. The drainage onsite is ephemeral lacking a predominance of hydrophytic vegetation. The project proposes a minimum of a 25 foot wide buffer from the limits of the RPO wetland where previous improvements don't preclude it.

No impacts are proposed to either the RPO wetland or buffer that are not allowed pursuant to the Ordinance. The Ordinance specifically precludes grading, filling, construction or placement of structures within wetlands or the wetland buffer. The project

proposes to enhance the buffer through the natural recovery of the northern mixed chaparral. No impacts occurred to RPO wetlands as a result of the clearing.

Sensitive Plant and Wildlife Species

One sensitive plant the Engelmann oak, and two sensitive wildlife species, the red-tailed hawk and the western bluebird were observed onsite. No Engelmann oaks are proposed to be removed as a result of the proposed project. Potential impacts to sensitive plant and animal species observed and with a high and moderate potential to occur onsite would be considered significant.

7.0 PROPOSED MITIGATION

Under CEQA, mitigation is required for all significant biological impacts (i.e. impacts within highly constrained areas). In addition, the CDFG 1600 and the ACOE 404 permit process generally require mitigation for the loss of wetland resources. The following mitigation measures are recommendations to offset significant impacts. Recommendations are also given to offset locally important biological impacts. Although mitigation measures are not often required for locally important impacts, local jurisdictions often implement these measures to minimize cumulative impacts within the region.

According to Appendix G of the State CEQA guidelines, the proposed project would have a potentially significant impact to onsite biological resources if it would:

- Have a substantial adverse affect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Resource Protection Ordinance

Under the RPO (discussed above), development of wetlands, wetland buffer areas, and sensitive habitat lands is restricted, as follows:

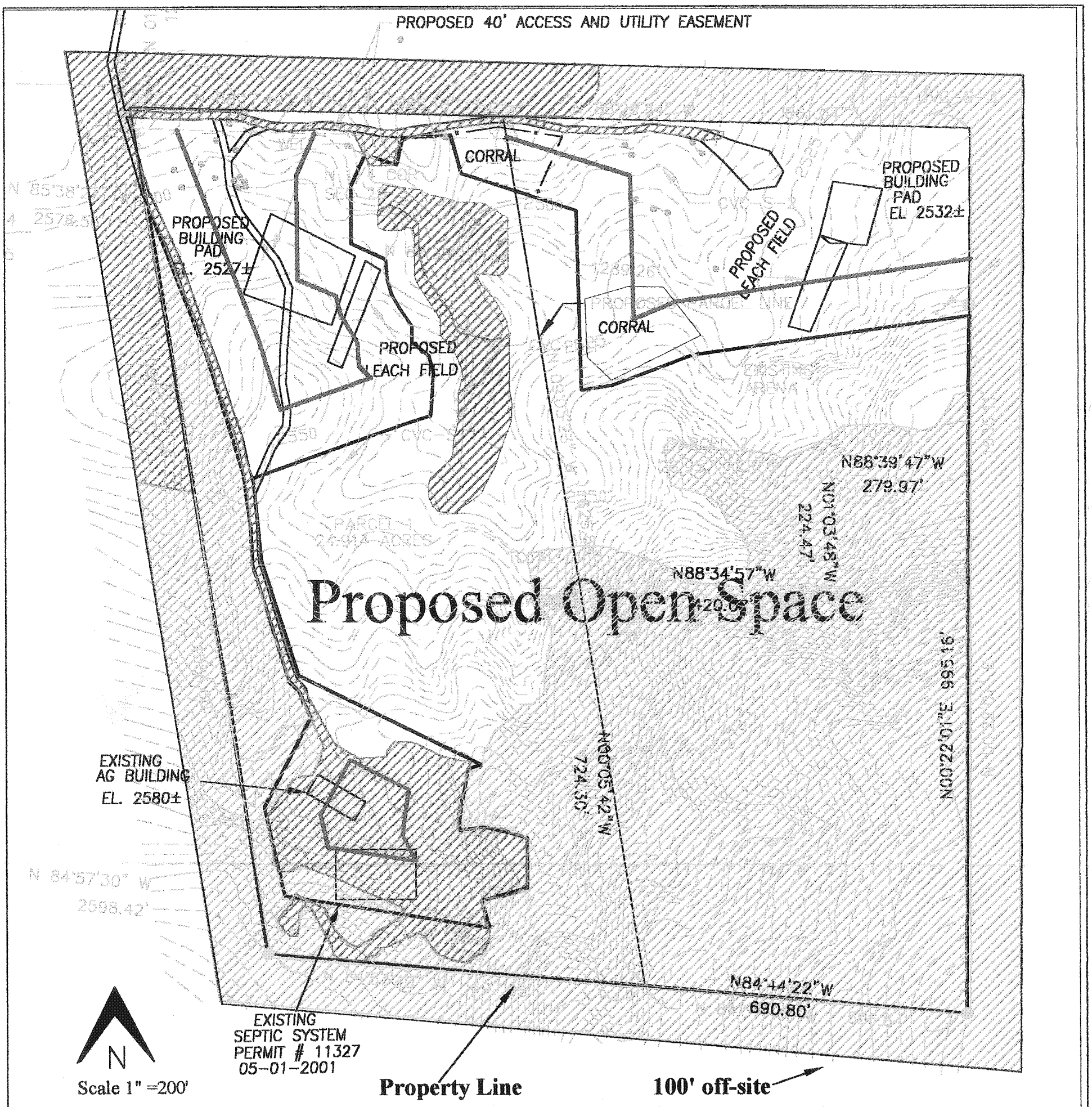
Within *wetlands*, the RPO restricts uses to aquaculture, scientific research, educational or recreational uses, or wetland restoration, and imposes further limitations which include, in particular, that grading, filling and construction is not permitted.

Within *wetland buffer areas*, the RPO allows uses permitted in wetland areas, plus access paths and other improvements necessary to protect adjacent wetlands.

Biological Mitigation Ordinance

The BMO requires that mitigation be provided, in accordance with ratios which take into account factors such as: (1) What "Tier" the impacted habitat falls into; (2) whether the impacted resources are located within a Biological Resources Core Area (BRCA) and (3) whether the mitigation land would be located onsite or offsite. As discussed in Section 2.0, Regional Setting, the project site does not qualify as a BRCA. The site does have connectivity to a large block of undeveloped lands to the east, south and west. As a result it is reasonable to accept on-site mitigation. The on-site mitigation has been designed to the maximum extent practicable to be contiguous with undeveloped lands off-site and reduce potential edge effects.

Under CEQA, mitigation is required for all significant biological impacts. Mitigation, per resource, is discussed below with corresponding level of significance after mitigation. Mitigation is being proposed through both on-site conservation and off-site purchase. In addition, part of the mitigation is being accomplished by allowing the impacted oak woodland and chaparral to recover. Both the impact site and mitigation site are assumed to not be located within a BRCA. Portions of the site that were not impacted are being given full credit at a 1:1 ratio to off-set the mitigation requirements. Portions of the site that were previously impacted and are being allowed to recover are being given credit at a 0.5:1 ratio to offset the temporal loss while the habitat recovers. Table 4 below describes how the mitigation credits are being allocated. Figure 4 identifies proposed open space.



Legend:

Engelmann Oak

Dense Coast Live Oak Woodland - non-impacted
1:1 Credit = 0.55 acres
Impact Neutral= 0.29 acres

Dense Coast Live Oak Woodland-impacted
0.5:1 Credit (0.83 acres) = 0.42 acres

Southern Mixed Chaparral
1:1 Credit = 20.08 acres

Southern Mixed Chaparral -impacted
0.5:1 Credit (11.7 acres) = 5.85 acres
Impact Neutral = 0.23 acres

Southern Mixed Chaparral
No Credit = 0.66 acres

Disturbed Habitat
No Credit = 0.52 acres

Non-Native Grassland -
Off- site
(Habitat Code: 42200)

Proposed Open Space

Limited Building Zone - 100'

RC
Biological Consulting

Mitigation Credit Allocation

Figure 4

Table 4 Mitigation for Impacts				
Habitat	**Acreage Required (See Table 3)**	**Acreage Onsite**	**Credit Ratio**	**Mitigation Credit On-site**
Dense Coast Live Oak Woodland -	1.66			
Un-impacted		0.55	1:1	0.55
		0.29	0*	0
Impacted		0.83	0.5:1	0.42
Southern Mixed Chaparral-	25.93			
Un-impacted		20.08	1:1	20.08
Impacted		11.70	0.5:1	5.85
		0.23	0*	0
Southern Mixed Chaparral- impact neutral		0.66	0	0
Disturbed -		0.52	0	0
Total Open Space On-site		34.86		27.19
Balance Due Off-Site if purchased outside of a BRCA: O.69 acres of oak woodland Balance Due off-site if purchased within a BRCA: 0.35 acres of oak woodland (This amount is a result of the difference in ratios that would apply if all of the oak woodland mitigation were being performed off-site within a BRCA.				

* 0.29 acres of coast live oak woodland and 0.23 acres of impacted southern mixed chaparral are included within the RPO wetland and buffer and therefore are considered impact neutral and do not contribute to mitigation requirements.

Dense Coast Live Oak Woodland (Tier I)

Impacts to the understory of approximately 0.83 acres of dense coast live oak woodland require mitigation at a 2:1 ratio. Mitigation is being accomplished through on-site conservation and off-site purchase as follows: 1.67 acres of dense coast live oak woodland will onsite will be placed within the open space easement. Of this approximately 0.84 acres have not been impacted. Mitigation credit is being given at a 1:1 ratio for the non-impacted woodland and at a 0.5:1 ratio for the impacted woodland. An additional off-site purchase at a 0.5:1 ratio for the 0.69 acres impacted will be required. Off –site purchase of 0.35 acres of coast live oak woodland is required. Additional mitigation includes the use of a grass specific herbicide and hydroseeding with a chaparral seed mix the portion of the oak woodland understory that has been previously impacted.

Southern Mixed Chaparral (Tier III)

Approximately 25.93 acres of this habitat will be impacted as a result of the proposed project. This is composed of 25.59 acres of previously impacted southern mixed chaparral and an additional 0.34 acres that occurs within the 50 foot fire clearing area

around the existing building. Impacts to this habitat will be mitigated through the on-site preservation of 20.08 acres of un-impacted southern mixed chaparral and 11.93 acres of impacted southern mixed chaparral. An additional 0.23 acres of impacted southern mixed chaparral is included within the RPO wetland and buffer and therefore does not contribute towards mitigation. Approximately 0.66 acres of southern mixed chaparral is included within the open space but does contribute towards mitigation because it is considered too constrained by potential edge effects to constitute mitigation (Figure 4). The remainder of the southern mixed chaparral within the open space easement has connectivity to undeveloped lands off-site.

RPO Wetland and Oak Woodland/RPOBuffer

The entire RPO wetland, RPO buffer and oak woodland buffer will be placed included within the open space easement. The establishment of this easement is to avoid future impacts not allowed pursuant to RPO and the conditions of approval for this project from disturbing this area. The easement informs the County staff and potential owners of restrictions on the activities allowed in this area. The following actions are prohibited within the open space easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than open space. Additional mitigation includes the use of a grass specific herbicide and hydroseeding with a chaparral seed mix the portion of the RPO/oak woodland buffer that has been previously impacted.

Sensitive Plant and Wildlife Species

One sensitive plant the Engelmann oak, and two sensitive wildlife species, the red-tailed hawk and the western bluebird were observed onsite. No Engelmann oaks are proposed to be removed as a result of the proposed project. Potential impacts to sensitive animal species observed and with a high and moderate potential to occur onsite will be mitigated by the habitat based mitigation in accordance with the BMO.

Protection of Open Space

The portion of the open space easement that is adjacent to developed areas onsite will be fenced. Additionally signs will be posted at 100 foot intervals indicating that the area is a sensitive habitat area and located within a biological open space easement.

With implementation of the proposed mitigation measures, impacts to biological resources will be mitigated to below a level of significance.

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9.0 CERTIFICATION

This report has been prepared by Robin Church, County Certified Biologist.

APPENDIX A

PLANTS OBSERVED

APPENDIX A

Vascular Plants Observed at the Chase/VanCleve Property

Scientific name	common name	FAMILY
Achillea millefolium var. *californica*	yarrow	ASTERACEAE - SUNFLOWER FAMILY
Acourtia microcephala	sacapellote	ASTERACEAE - SUNFLOWER FAMILY
Adenostoma fasciculatum	chamise	ROSACEAE - ROSE FAMILY
Ambrosia psilostachya var. *californica*	western ragweed	ASTERACEAE - SUNFLOWER FAMILY
*Anagallis arvensis**	scarlet pimpernel	PRIMULACEAE - PRIMROSE FAMILY
Antirrhinum nuttallianum	Nuttall's snapdragon	SCROPHULARIACEAE - FIGWORT FAMILY
Apiastrum angustifolium	wild celery	APIACEAE - CARROT FAMILY
Arctostaphylos glandulosa	Eastwood's manzanita	ERICACEAE - HEATH FAMILY
Arctostaphylos glauca	bigberry manzanita	ERICACEAE - HEATH FAMILY
*Avena barbata**	slender oat	POACEAE - GRASS FAMILY
Baccharis sarothroides	chaparral broom	ASTERACEAE - SUNFLOWER FAMILY
*Brassica nigra**	black mustard	BRASSICACEAE - MUSTARD FAMILY
*Bromus diandrus**	ripgut grass	POACEAE - GRASS FAMILY
*Bromus hordeaceus**	soft chess	POACEAE - GRASS FAMILY
Bromus madritensis ssp. *rubens**	foxtail chess	POACEAE - GRASS FAMILY
Calandrinia ciliata var. *menziesii*	redmaids	PORTULACACEAE - PURSLANE FAMILY
Calystegia macrostegia	western bindweed	CONVOLVULACEAE - MORNING-GLORY FAMILY
Camissonia bistorta	California sun cup	ONAGRACEAE - EVENING-PRIMROSE FAMILY
Camissonia californica	mustard primrose	ONAGRACEAE - EVENING-PRIMROSE FAMILY
Cardamine californica	milkmaids	BRASSICACEAE - MUSTARD FAMILY
Castilleja exserta	common owl's-clover	SCROPHULARIACEAE - FIGWORT FAMILY
Caulanthus heterophyllus var. *heterophyllus*	San Diego jewelflower	BRASSICACEAE - MUSTARD FAMILY
Ceanothus crassifolius	hoary-leaved ceanothus	RHAMNACEAE - BUCKTHORN FAMILY
Ceanothus leucodermis	chaparral whitethorn	RHAMNACEAE - BUCKTHORN FAMILY
Ceanothus spinosus	greenbark ceanothus	RHAMNACEAE - BUCKTHORN FAMILY
Ceanothus tomentosus ssp. *olivaceus*	woolly leaved ceanothus	RHAMNACEAE - BUCKTHORN FAMILY
*Centaurea melitensis**	tocalote	ASTERACEAE - SUNFLOWER FAMILY
*Cerastium glomeratum**	sticky mouse-ear	CARYOPHYLLACEAE - PINK FAMILY
Cercocarpus betuloides	birch-leaf mountain-mahogany	ROSACEAE - ROSE FAMILY
*Cirsium vulgare**	bull thistle	ASTERACEAE - SUNFLOWER FAMILY
Clarkia purpurea ssp. *quadrivulnera*	four-spot clarkia	ONAGRACEAE - EVENING-PRIMROSE FAMILY
Claytonia perfoliata var. *perfoliata*	miner's lettuce	PORTULACACEAE - PURSLANE FAMILY
Clematis pauciflora	ropevine	RANUNCULACEAE - CROWFOOT FAMILY
Crassula connata	dwarf stonecrop	CRASSULACEAE - STONECROP FAMILY
Cryptantha intermedia	common forget-me-not	BORAGINACEAE - BORAGE FAMILY
Cryptantha sp.	popcorn flower	BORAGINACEAE - BORAGE FAMILY
Cuscuta californica	California dodder	CUSCUTACEAE - DODDER FAMILY
Daucus pusillus	rattlesnake weed	APIACEAE - CARROT FAMILY
Dendromecon rigida	tree poppy	PAPAVERACEAE - POPPY FAMILY
Descurainia pinnata	western tansy mustard	BRASSICACEAE - MUSTARD FAMILY
Dichelostemma capitata	blue dicks	LILIACEAE - LILY FAMILY
Dudleya edulis	ladies-fingers	CRASSULACEAE - STONECROP FAMILY
Epilobium ciliatum	California cottonweed	ONAGRACEAE - EVENING-PRIMROSE FAMILY
Ericameria linearifolia	interior goldenbush	ASTERACEAE - SUNFLOWER FAMILY
Eriogonum fasciculatum	California buckwheat	POLYGONACEAE - BUCKWHEAT FAMILY
Eriophyllum confertiflorum var. *confertiflorum*	golden yarrow	ASTERACEAE - SUNFLOWER FAMILY
*Erodium botrys**	broad-lobed filaree	GERANIACEAE - GERANIUM FAMILY
*Erodium cicutarium**	red-stemmed filaree	GERANIACEAE - GERANIUM FAMILY
Eschscholzia californica	California poppy	PAPAVERACEAE - POPPY FAMILY
Eucrypta chrysanthemifolia	common eucrypta	HYDROPHYLLACEAE - WATERLEAF FAMILY
*Euphorbia peplus**	petty spurge	EUPHORBIACEAE - SPURGE FAMILY
Filago californica	California fluffweed	ASTERACEAE - SUNFLOWER FAMILY
*Filago gallica**	narrow-leaf filago	ASTERACEAE - SUNFLOWER FAMILY
Galium angustifolium ssp. *angustifolium*	narrow-leaved bedstraw	RUBIACEAE - MADDER FAMILY
*Galium aparine**	goose grass	RUBIACEAE - MADDER FAMILY
Gazania sp.*	African daisy	ASTERACEAE - SUNFLOWER FAMILY

APPENDIX A

Vascular Plants Observed at the Chase/VanCleve Property

Scientific name	common name	FAMILY
Gnaphalium bicolor	bicolor cudweed	ASTERACEAE - SUNFLOWER FAMILY
Gnaphalium californicum	California everlasting	ASTERACEAE - SUNFLOWER FAMILY
Gnaphalium canescens	white everlasting	ASTERACEAE - SUNFLOWER FAMILY
Gnaphalium stramineum	cotton-batting plant	ASTERACEAE - SUNFLOWER FAMILY
*Hedypnois cretica**	Crete hedypnois	ASTERACEAE - SUNFLOWER FAMILY
Helianthemum scoparium var. *aldersonii*	Alder son's rock-rose	CISTACEAE - ROCK-ROSE FAMILY
Heteromeles arbutifolia	toyon	ROSACEAE - ROSE FAMILY
Heterotheca grandiflora	telegraph weed	ASTERACEAE - SUNFLOWER FAMILY
*Hordeum murinum**	glaucous foxtail barley	POACEAE - GRASS FAMILY
Horkelia sp.	horkelia	ROSACEAE - ROSE FAMILY
*Hypochaeris glabra**	smooth car's-ear	ASTERACEAE - SUNFLOWER FAMILY
Jepsonia parryi	mesa saxifrage	SAXIFRAGACEAE - SAXIFRAGE FAMILY
Juncus sp.	rush	JUNCACEAE - RUSH FAMILY
Keckiella antirrhinoides ssp. *antirrhinoides*	chaparral beard-tongue	SCROPHULARIACEAE - FIGWORT FAMILY
Keckiella cordifolia	heart-leaf penstemon	SCROPHULARIACEAE - FIGWORT FAMILY
*Lactuca serriola**	prickly lettuce	ASTERACEAE - SUNFLOWER FAMILY
*Lamarckia aurea**	goldentop	POACEAE - GRASS FAMILY
Lathyrus laetiflorus	wild sweet pea	FABACEAE - PEA FAMILY
*Lepidium nitidum**	shining peppergrass	BRASSICACEAE - MUSTARD FAMILY
Lessingia filaginifolia	virgate cudweed aster	ASTERACEAE - SUNFLOWER FAMILY
*Linaria sp.**	flax	SCROPHULARIACEAE - FIGWORT FAMILY
*Lobularia maritima**	sweet-alyssum	BRASSICACEAE - MUSTARD FAMILY
Lonicera subspicata var. *denudata*	southern honey suckle	CAPRIFOLIACEAE - HONEYSUCKLE FAMILY
Lotus argophyllus	silver leaf lotus	FABACEAE - PEA FAMILY
Lotus hamatus	grab lotus	FABACEAE - PEA FAMILY
Lotus scoparius	deerweed	FABACEAE - PEA FAMILY
Lotus strigosus	strigose deerweed	FABACEAE - PEA FAMILY
Lupinus bicolor	Lindley's annual lupine	FABACEAE - PEA FAMILY
Lupinus succulentis	arroyo lupine	FABACEAE - PEA FAMILY
*Lythrum hyssopifolia**	Hyssop loosestrife	LYTHRACEAE - LOOSESTRIFE FAMILY
Malacothamnus fasciculatus	mesa bushmallow	MALVACEAE - MALLOW FAMILY
Malosma laurina	laurel sumac	ANACARDIACEAE - SUMAC FAMILY
Marah macrocarpus	wild cucumber	CUCURBITACEAE - GOURD FAMILY
*Marrubium vulgare**	horehound	LAMIACEAE - MINT FAMILY
Mimulus aurantiacus	bush monkeyflower	SCROPHULARIACEAE - FIGWORT FAMILY
Nassella lepida	foothill stipa	POACEAE - GRASS FAMILY
Navarretia atractyloides	holly-leaf skunkweed	POLEMONIACEAE - PHLOX FAMILY
Nemophila menziesii	baby blue-eyes	HYDROPHYLLACEAE - WATERLEAF FAMILY
*Nicotiana glauca**	tree tobacco	SOLANACEAE - NIGHTSHADE FAMILY
Oenothera elata ssp. *hookeri*	Hooker's evening primrose	ONAGRACEAE - EVENING-PRIMROSE FAMILY
Paeonia californica	California peony	PAEONIACEAE - PEONY FAMILY
Pellaea mucronata var. mucronata	bird's-foot fern	PTERIDACEAE - BRAKE FAMILY
*Pennisetum setaceum**	fountain grass	POACEAE - GRASS FAMILY
Penstemon spectabilis	royal penstemon	SCROPHULARIACEAE - FIGWORT FAMILY
Pentagramma triangularis ssp. triangularis	goldenback fern	PTERIDACEAE - BRAKE FAMILY
Phacelia brachyloba	short-lobed phacelia	HYDROPHYLLACEAE - WATERLEAF FAMILY
Phacelia cicutaria	caterpillar phacelia	HYDROPHYLLACEAE - WATERLEAF FAMILY
Phacelia parryi	Parry's phacelia	HYDROPHYLLACEAE - WATERLEAF FAMILY
Plagiobothrys sp.		BORAGINACEAE - BORAGE FAMILY
Plantago ovata	woolly plantain	PLANTAGINACEAE - PLANTAIN FAMILY
Platystemon californicus var. crinitus	cream cups	PAPAVERACEAE - POPPY FAMILY
Prunus ilicifolia	holly-leaf cherry	ROSACEAE - ROSE FAMILY
Pterostegia drymarioides	California thread stem	POLYGONACEAE - BUCKWHEAT FAMILY
Quercus agrifolia	coast live oak	FAGACEAE - BEECH FAMILY
Quercus berberidifolia	scrub oak	FAGACEAE - BEECH FAMILY
Quercus engelmannii	Engelmann oak	FAGACEAE - BEECH FAMILY
Rhus ovata	sugar-bush	ANACARDIACEAE - SUMAC FAMILY

APPENDIX A

Vascular Plants Observed at the Chase/VanCleve Property

Scientific name	**common name**	**FAMILY**
Ribes indecorum	winter currant	GROSSULARIACEAE - CURRANT FAMILY
Romneya coulteri	Coulter's Matilija Poppy	PAPAVERACEAE - POPPY FAMILY
*Rumex crispus**	curly dock	POLYGONACEAE - BUCKWHEAT FAMILY
Salix lasiolepis var. bracelinae	arroyo willow	SALICACEAE - WILLOW FAMILY
Salvia apiana	white sage	LAMIACEAE - MINT FAMILY
Salvia columbariae	chia	LAMIACEAE - MINT FAMILY
Salvia mellifera	black sage	LAMIACEAE - MINT FAMILY
Sambucus mexicana	Mexican elderberry	CAPRIFOLIACEAE - HONEYSUCKLE FAMILY
*Schismus barbatus**	Mediterranean schismus	POACEAE - GRASS FAMILY
Scrophularia californica var. floribunda	coast figwort	SCROPHULARIACEAE - FIGWORT FAMILY
Selaginella bigelovii	Bigelow's spike-moss	SELAGINELLACEAE - SPIKE-MOSS FAMILY
*Senecio vulgaris**	common groundsel	ASTERACEAE - SUNFLOWER FAMILY
*Silene gallica**	common catchfly	CARYOPHYLLACEAE - PINK FAMILY
*Sisymbrium altissimum**	tumble mustard	BRASSICACEAE - MUSTARD FAMILY
*Sisymbrium orientale**	Oriental mustard	BRASSICACEAE - MUSTARD FAMILY
Solanum xanti	chaparral nightshade	SOLANACEAE - NIGHTSHADE FAMILY
*Sonchus asper**	prickly sow-thistle	ASTERACEAE - SUNFLOWER FAMILY
Stylocline gnaphalioides	everlasting nest-straw	ASTERACEAE - SUNFLOWER FAMILY
Tamarix sp.*	tamarisk	TAMARICACEAE - TAMARISK FAMILY
Thalictrum polycarpum	many-fruit meadow-rue	RANUNCULACEAE - CROWFOOT FAMILY
Thysanocarpus laciniatus	narrow-leaved fringepod	BRASSICACEAE - MUSTARD FAMILY
Toxicodendron diversilobum	poison-oak	ANACARDIACEAE - SUMAC FAMILY
*Trifolium hirtum**	rose clover	FABACEAE - PEA FAMILY
Trifolium willdenovii	valley clover	FABACEAE - PEA FAMILY
*Vicia villosa**	winter vetch	FABACEAE - PEA FAMILY
*Vulpia myuros**	rattail fescue	POACEAE - GRASS FAMILY
Xylococcus bicolor	mission manzanita	ERICACEAE - HEATH FAMILY
Yucca schidigera	Mohave yucca	LILIACEAE - LILY FAMILY
Yucca whipplei	Spanish bayonet	LILIACEAE - LILY FAMILY
* denotes non-native species		

APPENDIX B

WILDLIFE SPECIES OBSERVED

APPENDIX B

WILDLIFE SPECIES OBSERVED ON THE CHASE/VAN CLEVE PROPERTY

Common Name	Scientific Name	# Observed
INVERTEBRATES		
Acmon blue	*Icaricia acmon*	8
Behr's metalmark	*Apodemia mormo virgulti*	1
Cabbage white	*Artogeia rapae*	1
California ringlet	*Coenonympha california california*	1
California White	*Pontia sisymbrii*	2(?)
Common white	*Pontia protodice*	8
Felder's orangetip	*Anthocharis cethura*	3(?)
Fly	**Family** *Muscidae*	Many
Funereal duskywing	*Erynnis funeralis*	20
Ladybug	**Family** *Coccinellidae*	Many
Painted lady	*Vanessa cardui*	39
Red Admiral	*Vanessa cardui*	2
Red ant	*Formica* sp.	Many
Sara orangetip	*Anthocharis sara*	170
Sonoran blue	*Philotes sonorensis*	32
West Coast lady	*Vanessa annabella*	12
REPTILES		
Granite Spiny Lizard	*Sceloporus orcutti*	4
Sagebrush Lizard	*Sceloporus graciosus*	8
Side-blotched Lizard	*Uta stansburiana*	3
Western fence lizard	*Sceloporus occidentalis*	6
BIRDS		
Anna's hummingbird	*Calypte anna*	2
California quail	*Callipepla californica*	6
California thrasher	*Toxostoma redivivum*	1
California towhee	*Pipilo crissalis*	5
Chipping sparrow	*Spizella passerina*	2
Common raven	*Corvus corax*	4
Dark-eyed junco	*Junco hyemalis*	12
House finch	*Carpodacus mexicanus*	7
House wren	*Troglodytes aedon*	2
Lesser goldfinch	*Carduelis psaltria*	3
Mourning dove	*Zenaida macroura*	2
Northern flicker	*Colaptes auratus*	1
Red-tailed hawk	*Buteo jamaicensis*	1
Rufous-sided towhee	*Pipilo erythrophthalmus*	2
Scrub jay	*Aphelocoma californica*	2
Western bluebird	*Sialia mexicana*	2
White-crowned sparrow	*Zonotrichia leucophrys*	10
Yellow-rumped warbler	*Dendroica coronata*	3
MAMMALS		
California ground squirrel	*Spermophilus beecheyi*	2
Coyote	*Canis latrans clepticus*	scat
Domestic dog	*Canis domestica*	6
Horse	*Equus* sp.	4
Pocket gopher	*Thomomys bottae*	many holes

APPENDIX C

SENSITIVE PLANT SPECIES WITH THE POTENTIAL TO OCCUR

APPENDIX C

SENSITIVE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO CHASE/VAN CLEVE (USGS BARRETT LAKE QUAD)

Species	Growth form/Bloom Period	CNPS	R-E-D	State	Federal	Potential to Occur Onsite
ARCTOSTAPHYLOS OTAYENSIS "Otay manzanita"	Shrub (evergreen) January - March	1B	3-2-3	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
ASTRAGALUS DEANEI "Dean's milk-vetch"	Perennial herb February - May	1B	3-3-3	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
BERBERIS FREMONTII "Fremont barberry"	Shrub (evergreen) April - June	3	?-?-1	None	None	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
BRODIAEA ORCUTTII "Orcutt's brodiaea"	Perennial herb (bulbiferous) May - July	1B	1-3-2	None	SOC	Low potential to occur onsite. This species is associated with clay soils which do not occur onsite.
BURSERA MICROPHYLLA "elephant tree"	Tree (deciduous) June-July	2	3-1-1	None	None	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
CALOCHORTUS DUNNII "Dunn's mariposa lily"	Perennial herb (bulbiferous) April - June	1B	2-2-2	CR	SOC	Low potential to occur. This species is associated with dry stoney ridges in chaparral and yellow pine forests at elevations from 1500 to 1700m which is higher then the site (Hickman 1993).
CEANOTHUS CYANEUS "Lakeside ceanothus"	Shrub (evergreen) April - June	1B	3-2-2	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
CHAMAEBATIA AUSTRALIS "southern mountain misery"	Shrub (evergreen) Novemeber - May	4	1-2-1	None	None	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
CHORIZANTHE LEPTOTHECA "Peninsular spineflower"	Annual herb May - August	4	1-2-2	None	None	Moderate potential to occur onsite. No Chorizanthe spp. observed during surveys.
CHORIZANTHE ORCUTTIANA "Orcutt's spineflower"	Annual herb March - May	1B	3-3-3	CE	FE	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
CHORIZANTHE POLYGONOIDES VAR. LONGISPINA "long-spined spineflower"	Annual herb April - July	1B	2-2-2	None	SOC	Low potential to occur onsite this species is typically associated with clay soils which do not occur onsite.
CLARKIA DELICATA "delicate clarkia"	Annual herb April - June	1B	2-2-2	None	None	Moderate potential to occur onsite. Only Clarkia purpurea observed during surveys.
COMAROSTAPHYLIS DIVERSIFOLIA SSP. DIVERSIFOLIA "summer holly"	Shrub (evergreen) April - June	1B	2-2-2	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
CUPRESSUS FORBESII "Tecate cypress"	Tree (evergreen)	1B	3-3-2	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
ERICAMERIA PALMERI SSP. PALMERI "Palmer's goldenbush"	Shrub (evergreen) July - November	2	3-2-1	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
LATHYRUS SPLENDENS "pride-of-California"	Perennial herb March - June	4	1-1-2	None	None	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
LEPECHINIA GANDERI "Gander's pitcher sage"	Shrub June - July	1B	3-1-2	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.

Species	Growth form/Bloom Period	CNPS	R-E-D	State	Federal	Potential to Occur Onsite
LOTUS CRASSIFOLIUS VAR. OTAYENSIS "Otay Mountain lotus"	Perennial herb May - August	1B	3-3-2	None	SOC	Moderate potential to occur onsite. Not observed during surveys.
MONARDELLA HYPOLEUCA SSP. LANATA "felt-leaved monardella"	Perennial herb (rhizomatous) June - August	1B	2-2-2	None	None	Moderate potential to occur onsite. Not observed during surveys.
NOLINA INTERRATA "Dehesa nolina"	Perennial herb June - July	1B	3-3-2	CE	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
PIPERIA COOPERI "chaparral rein orchid"	Perennial herb March - June	4	1-2-2	None	None	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
PIPERIA LEPTOPETALA "narrow-petaled rein orchid"	Perennial herb May - July	4	1-1-3	None	None	Moderate potential to occur onsite. Not observed during surveys.
POLYGALA CORNUTA VAR. FISHIAE "Fish's milkwort"	Shrub (deciduous) May - August	4	1-1-2	None	None	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
QUERCUS CEDROSENSIS "Cedros Island oak"	Tree (evergreen) April - May	2	3-2-1	None	None	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
QUERCUS DUMOSA "Nuttall's scrub oak"	Shrub (evergreen) February - April	1B	2-3-2	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
RIBES CANTHARIFORME "Moreno currant"	Shrub (deciduous) February - April	1B	3-1-3	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.
SENECIO GANDERI "Gander's ragwort"	Perennial herb April - May	1B	3-2-3	CR	SOC	Low potential to occur this species is associated with burns and gabbroic outcrops, this site has not burned recently and does not contain gabbroic soils.
TETRACOCCUS DIOICUS "Parry's tetracoccus"	Shrub (deciduous) April - May	1B	3-2-2	None	SOC	Low potential to occur onsite this species would have been observable during the surveys and was not documented onsite.

APPENDIX D

SENSITIVE WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR

APPENDIX D
SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE CHASE/VAN CLEVE PROPERTY

Common Name	Scientific Name	Federal/ State Status*	Habitat	Potential to Occur Onsite
INVERTEBRATES				
Hermes copper	*Lycaena hermes*	FSC/--	Coastal sage scrub, southern mixed chaparral; host plant: *Rhamnus crocea* not found onsite	Low potential to occur onsite. Although the host plant occurs onsite it does not occur with host plant and nectar plant side by side or in close proximity as required (Faulkner and Klein 2003).
Quino checkerspot	*Euphydryas editha quino*	FE/--	Coastal sage scrub, chaparral, oak woodlands, meadows, juniper woodland, semi-desert scrub; host plant: *Plantago erecta* , not found onsite.	Low potential to occur onsite. *Plantage erecta* not found onsite. Focussed surveys did not detect this species onsite.
AMPHIBIANS				
Arroyo toad	*Bufo microscaphus californicus*	FE/CSC, protected	Open, sandy washes with low growth riparian vegetation. Nocturnal.	Low potential to occur onsite. No suitable habitat occurs onsite.
Western spadefoot toad	*Scaphiopus hammondii*	FSC/CSC protected	This species occurs primarily in grassland situations, but occassional populations also occur in valley-foothill hardwood woodlands. Some populations persist for a few years in orchard-vineyard habitat.	Low potential to occur onsite. Although some oak woodland occurs onsite it was surrounded by mixed chaparral until recent clearing occurred.
REPTILES				
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	--/CSC	Grass, chaparral, woodland, desert and coastal sage scrub	Moderate potential to occur onsite.
Coastal Rosy Boa	*Charina trivirgata roseofusca*	FSC/--	Occurs in rocky chaparral covered areas such as coastal canyons and hillsides.	Moderate potential to occur onsite.
Coastal western whiptail	*Cnemidophorus tigris multiscutatus*	FSC/--	Occurs in valley foothill hardwood, hardwood-conifer, and hardwood riparian, mixed conifer, chamise-redshank chaparral, mixed chaparral, desert and wash, alkali scrub and annual grasslands	Moderate potential to occur onsite.
Northern red-diamond rattlesnake	*Crotalus ruber ruber*	FSC/CSC	Open grassy areas and agricultural areas	Low potential to occur onsite. Although there is open areas onsite the chaparral has only recently been cleared.
Orange-throated whiptail	*Cnemidophus hyperythrus beldingii*	FSC/CSC, protected	Open chaparral and coastal sage scrub with sandy soils	Low potential to occur onsite. Although there is open areas onsite the chaparral has only recently been cleared.
San Diego horned lizard	*Phrynosoma coronatum blainvillei*	FSC/CSC	Occurs in valley-foothill hardwood, conifer and riparian habitats, as well as in pine-cypress, juniper and annual grass habitats.	Moderate potential to occur onsite.

Common Name	Scientific Name	Federal/ State Status*	Habitat	Potential to Occur Onsite
San Diego ringneck snake	*Diadophus punctatus similes*	--/--	Most common in open, relatively rocky areas within valley-foothill, mixed chaparral and annual grassland habitats	Moderate potential to occur onsite.
BIRDS				
Bell's Sage Sparrow	*Amphispiza belli belli*	FSC/CSC	Occurs in fairly dense stands in chaparral and scrub habitats.	Moderate potential to occur onsite.
Cooper's hawk	*Accipiter cooperi*	--/CSC	Dense stands of live oak, riparian deciduous, or other forest habitats near water used most frequently.	Moderate potential to occur onsite.
Golden eagle	*Aquilo chrysaetos*	--/CSC	Mountains, foothills, and adjacent grassland, open areas(nesting/wintering)	Moderate potential to use the site as part of their territory.
Turkey vulture	*Cathartes aura*	--/--	Suitable habitat consists of extensive open areas with protected nests and roost sites provided by large trees, snags, thickets, shrubs and rock outcrops.	High potential to occur onsite.Observed on the adjacent property.
Western bluebird	*Sialia mexicana*	--/--	Prefers oak savanna or coniferous or oak woodlands where these adjoin meadows or grassland.	Observed onsite.
MAMMALS				
American badger	*Taxidea taxus*	--/CSC	This species is most abundant in drier open stages of most shrub, forest, and herbaceous habitats.	Low potential to occur onsite. No suitable habitat and no burrows observed.
Big free-tailed bat	*Nictinomops macrotis*	--/CSC	Rare in California, records of this species are from urban areas of San Diego County, and vagrant found in fall and winter.	Low potential to occur onsite. No suitable habitat.
Dulzura (California) pocket mouse	*Chaetodipus (=Perognathus) californicus femoralis*	FSC/CSC	Occurs in a wide variety of habitats but probably reaches its greatest abundance where chaparral and grassland occur in close proximity.	Moderate potential to occur onsite.
Fringed myotis	*Myotis thysanodes*	SOC/--	Optimal habitats are pinyon-juniper, valley foothill hardwood, and hardwood conifer, generally at 1300 to 2200 meters.	Low potential to occur onsite. No suitable habitat and the site is below the general elevation range for this species.
Greater western mastiff bat	*Eumops perotis californicus*	FSC/CSC	Open, semi-arid to arid habitats, deciduous woodlands, coastal scrub, annual grasslands, chaparral, and urban; requires crevices in cliff faces, high buildings, trees, and tunnels for roosting.	Moderate potential to occur onsite.
Long eared myotis	*Myotis evotis*	FSC/--	This species has been found in nearly all brush, woodland and forest habitats, but coniferous forests and woodlands seem to be preferred. Roosts in buildings, crevices, spaces under bark and snags.	Moderate potential to occur onsite.

Common Name	Scientific Name	Federal/ State Status*	Habitat	Potential to Occur Onsite
Long legged myotis	*Myotis volans*	FSC/--	This species is most common in forest and woodland habitats above 1200 m. Also forages in chaparral, coastal scrub and Great Basin shrub habitats. Roosts in rock crevices, buildings, under tree bark, in snags, mines, and caves.	Low potentil to occur onsite. Site is lower in elevation then the general range for the species.
Los Angeles little pocket mouse	*Perognathus longimembris brevinasus*	SOC/CSC	Preferred habitats include desert riparian, desert scrub, desert wash, coastal scrub, and sagebrush.	Low potential to occur onsite. No suitable habitat.
Mountain lion	*Felis concolor*	--/ protected	Widespread, uncommon permanent resident, ranging from sea level to alpine meadows. Most abundant in riparian areas, and brushy stages of most habitats.	Moderate potential to use the site as part of their territory.
Pallid bat	*Antrozous pallid*	--/CSC Sensitive	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, desert wash and desert scrub. Prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging; 0-1000ft.	Moderate potential to occur onsite.
Pocketed free-tailed bat	*Tadarida femorosacca*	--/CSC	Habitats used include pinyon-juniper woodlands, desert scrub, desert succulent scrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis.	Low potential to occur onsite. No suitable habitat.
Ringtail	*Bassariscus astutus*	--/--	Occurs in various riparian habitats, and in brush stands of most forest and shrub habitats, at low to middle elevations.	Moderate potential to occur onsite.
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	FSC/CSC	Associated with intermediate canopy stages of shrub habitats, and open shrub/herbaceous and tree/herbaceous edges provide suitable habitat.	Low potential to occur onsite. Until recently cleared the site was had dense chaparral that would be too dense for this species.
San Diego Desert Woodrat	*Neotoma lepida intermedia*	FSC/CSC	Moderate to dense canopies preferred. This species is particularly abundant in rock outcrops, and rocky cliffs and slopes.	Moderate potential to occur onsite.
Small-footed myotis	*Myotis leibii*	SOC/--	This is a bat of arid, upland habitats. It prefers open stands in forests and woodlands as well as brushy habitats. Streams, ponds, springs and stock tanks are used for drinking and feeding.	Moderate potential to occur onsite.
Southern grasshopper mouse	*Onychomys torridus ramona*	FSC/CSC	Occurs in coastal scrub, mixed chaparral, sagebrush, low sage and brittle brush habitats. Requires friable soils for digging.	Low potential to occur onsite. The soils would not be suitable for digging.

Common Name	Scientific Name	Federal/ State Status*	Habitat	Potential to Occur Onsite
Southern mule deer	*Odocoileus heminonus*	--/--	Suitable habitat is a mosaic of vegetation, providing an interspersion of herbaceous openings, dense brush or tree thickets, riparian areas and abundant edge.	Moderate potential to occur onsite.
Townsend's western big-eared bat	*Plecotus townsendii*	FSC/CSC	This species is found in all but subalpine and alpine habitats, but is most abundant in mesic habitats. Requires caves, mines, tunnels, buildings, or other human-made structures for night, day, hibernation or maternity roosts.	Low potential to occur onsite.Only known location for this species in San Diego county is Noble Canyon (Pierson and Rainy 1998).
Yuma myotis	*Myotis yumanensis*	SOC/CSC Sensitive	Mixed chaparral, riparian, oak woodland and pinon juniper. Optimal habitats are open forests and woodlands with sources of water over which to feed; 0-1000ft.	Low potential to occur onsite. The site is higher in elevation then their preferred range and lacks open water.

* see APPENDIX E - Sensitivity Codes for explanation of abbreviations

APPENDIX E

SENSITIVITY CODES

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SENSITIVITY CODES

FEDERAL SPECIES DESIGNATIONS (USFWS 2001)

Category	
FE	Federal Endangered species
FT	Federal Threatened species
FPE	Taxa proposed to be listed as Endangered.
FPT	Taxa proposed to be listed as Threatened.
SOC	Species of Concern (former Candidate Species)

STATE SPECIES DESIGNATIONS (CDFG 2000)

Category	
SE	State listed as Endangered.
ST	State listed as Threatened.
SR	State-listed Rare
SCE	State candidate for listing as Endangered.
SCT	State candidate for listing as Threatened.
CSC	CDFG "Species of Special Concern".

CALIFORNIA NATIVE PLANT SOCIETY DESIGNATIONS (CNPS 2001)

The CNPS Lists

List 1 Plants of highest priority.
- 1A Plants presumed extinct in California.
- 1B Plants rare, threatened or endangered in California and elsewhere.

List 2 Plants rare, threatened or endangered in California, but more common elsewhere.

List 3 Plants about which we need more information. (A Review List)

List 4 Plants of limited distribution (A Watch List).

The R-E-D Code

R (Rarity)
- 1 Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
- 2 Distributed in a limited number of occurrences, occasionally more if each occurrence is small.
- 3 Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported.

E (Endangerment)
- 1 Not endangered.
- 2 Endangered in a portion of its range.
- 3 Endangered throughout its range.

D (Distribution)
- 1 More or less widespread outside California.
- 2 Rare outside California.
- 3 Endemic to California.

APPENDIX F

QUINO CHECKERSPOT BUTTERFLY REPORT

Mr. Daniel Marquez
U. S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, California 92009

Subject: ***45-Day Report for the Chase/Van Cleve Property Quino Checkerspot Butterfly Flight Survey, Jamul, San Diego County, California PERMIT #TE-007628***

Dear Mr. Marquez:

This report documents the results of ten (10) flight survey visits conducted by Darren Scott Smith (Permit #TE-007628) and Robin Church (an authorized sub-permittee of #TE-007628), for the presence of the federally-listed endangered quino checkerspot butterfly (*Euphydryas editha quino*; QCB). QCB was not observed during the survey. The QCB's primary host plant, dwarf plantain (*Plantago erecta*), was not observed on the site but several other potential host species were: *Castelleja exserta, Kekiella antirhinioides, Plantago ovata,* and *Antirhinum nuttallianum.*

Site Location and Description

The Chase/Van Cleve property occurs in the Community of Jamul, east San Diego County, South of Deerhorn Valley Road. The proposed project is located within the USGS 7.5' Barrett Lake quad, Township 17 south, range 2 East (Figure 1). The Project area occurs within Survey Area 2, as designated on the Year 2000 Survey Areas Map (USFWS 2000). The areas surveyed included all suitable habitat (*e.g.,* host plant populations, nectar plant populations, hilltops, ridgelines, native and sparsely vegetated areas) within the property. Based on a habitat assessment conducted prior to the flight season by Robin Church, not all of the property was considered suitable habitat for the QCB. The proposed project involves a lot split for the development of two homes and dedication of native habitat to open space.

The project site covers approximately 52 acres and supports native vegetation, several temporary buildings, two horse corrals, and several dirt roads. Topography onsite is moderately steep, with elevations ranging onsite from 2,475 to 2,825 feet above mean sea level. The entire site is situated on a north-facing slope with several minor ridges, knolls, and drainages. Soils onsite consist of Vista rocky coarse sandy loam (Vve), 15 to 30 percent slopes and Cieneba-Fallbrook rocky coarse sandy loam (CmrG), 30 to 75 percent slopes (Bowman 1973). Representative photos of suitable habitat on the site are shown on Photopage 1.

Vegetation Communities

Results from the site assessment determined that approximately 30 acres of habitat that would require QCB surveys and 22 acres could be excluded from surveys (Figure 2).

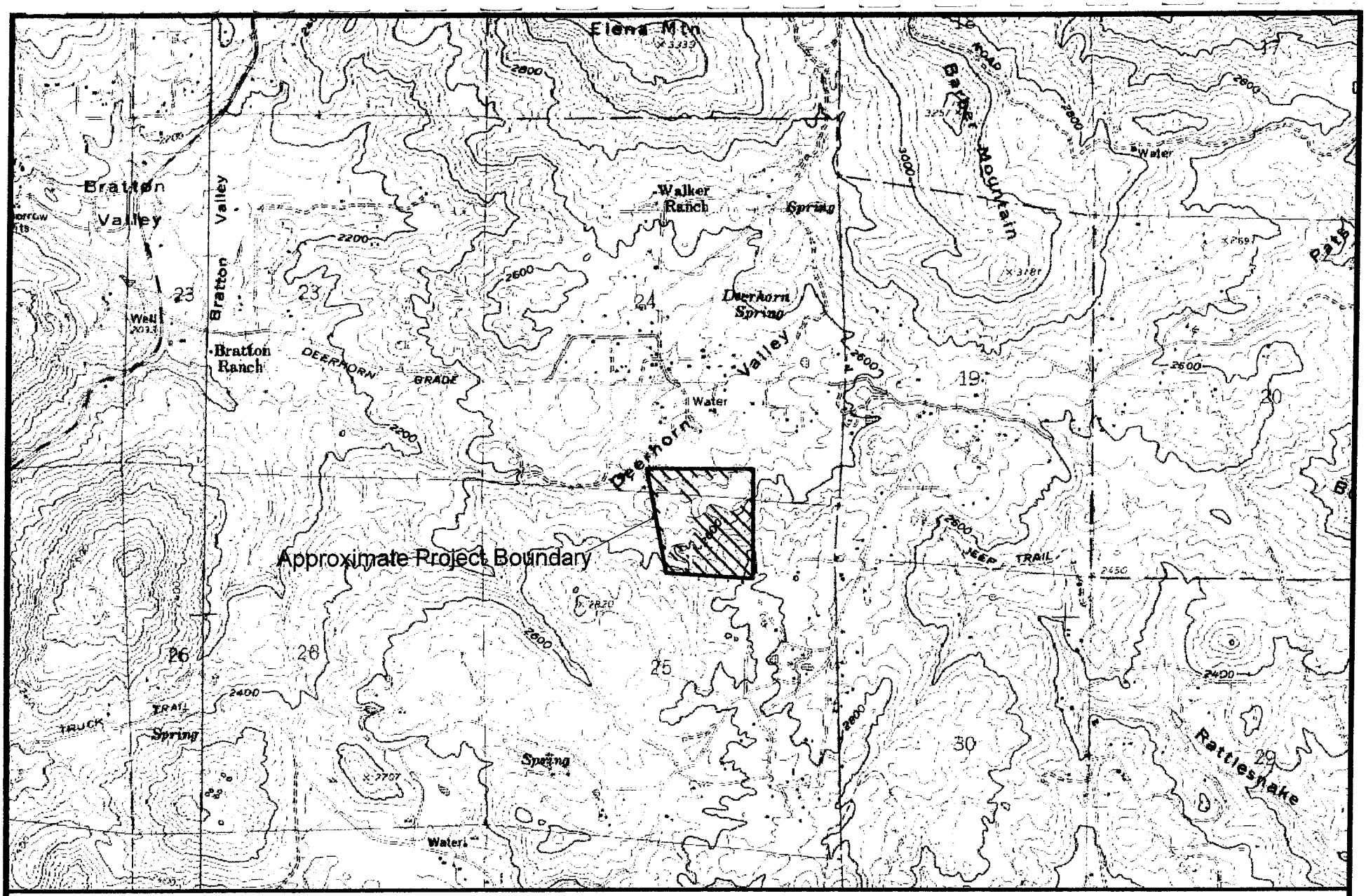


Figure 1. Project Location Map

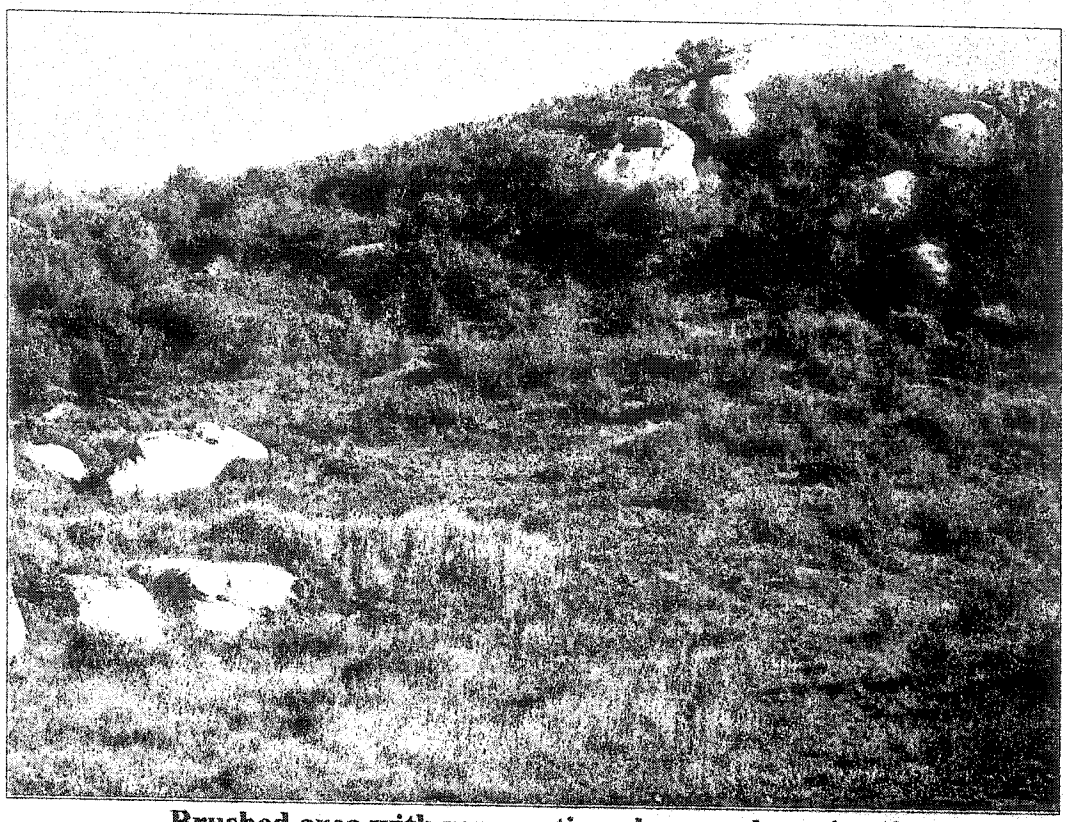
Chase/Van Cleve Property - 45 Day Report for QCB

Brushed area with emerging subshrubs

Disturbed slope seeded with *Plantago ovata*

Photo Page 1. Site Photos

Chase/Van Cleve Property - 45 Day Report for QCB



Brushed area with resprouting chaparral species (foreground) and dense mixed chaparral (background)

Brushed area with native and exotic annual species

Figure 2. Excluded Areas and Vegetation Types
Chase/Van Cleve Property - 45 Day Report for QCB

years prior to this survey, the site was largely covered by dense chaparral, or oak woodland. A portion of the chaparral vegetation was mechanically cleared, resulting in areas of bare soil, or sparse resprouting shrubs with moderate cover of annual herbs.

The project site currently supports two native habitat types, northern mixed chaparral and coast live oak woodland. Portions of the project site also include developed land and disturbed land. These habitats are discussed in further detail below.

Northern mixed chaparral covers approximately 18-acres of the site and consists of tall-statured stands (between 3 and 5 meters) of a variety chaparral species. No single species are dominant but several species are common: holly-leaf cherry (*Prunus ilicifolia*), toyon (*Heteromeles arbutifolia*), birch-leaved mountain-mahogany (*Cercocarpus betuloides*), chamise (*Adenostoma fasciculatum*), scrub oak (*Quercus berberidifolia*), woolly-leaved ceanothus (*Ceanothus tomentosus*), chaparral whitethorn (*C. leucodermis*), bigberrry manzanita (*Arctostaphylos glauca*), Eastwood's manzanita (*Arctostaphylos glandulosa*), honeysuckle(*Lonicera supspicata*), and heart-leaved penstemon (*Kekiella chordifolia*).

Approximately 30-acres of northern mixed chaparral was recently mechanically disturbed (brushed) and now supports stump-sprouting individuals of birch-leaved mountain mahogany, scrub oak, and several of the ceanothus and manzanita species. Several of the cleared patches now support low cover of subshrubs including flat-top buckwheat (*Eriogonum fasciculatum*), and deer weed (*Lotus scoparius*), with a few individuals of white sage (*Salvia apiana*) and black sage (*Salvia mellifera*). The disturbance also allowed for growth of many annual species typically of a post-fire flora including blue dicks (*Dichelostemma capitatum*), golden yarrow (*Eriophyllum confertiflorum*), California sun cup (*Camissonia bisorta*), strigose deerweed (*Lotus strigosus*), grab lotus (*Lotus hamatus*), Lindley's annual lupine (*Lupinus bicolor*), several species of popcorn flower (*Cryptantha/Plagiobothrys* spp.), California poppy, and baby blue-eyes (*Nemophila menziesii*). Steep portions of the disturbed areas were recently hydro-seeded with alyssum (*Lobularia maritima*), African daisy (*Gazania* sp.), California poppy, flax (*Linaria* sp.), and woolly plantain (*Plantago ovata*).

Disturbed habitat or developed land onsite consists of areas improved to include an agricultural building and an SDG&E easement for the power lines adjacent to the southern edge of the property. Disturbed habitat is composed primarily of bare ground and improved areas. This land cover occupies approximately 4 acres of the site.

Quino Checkerspot Survey Methods

Survey methods followed those outlined in the Year 2002 Survey Protocol for the quino checkerspot butterfly (USFWS 2002). Surveys consisted of meandering transects within all of the open native vegetation on site with proportionally greater time spent within areas supporting nectar plants, potential host plants, and on the minor ridges. Survey conditions are detailed in Table 1. Field notes are attached in Appendix 1.

Table 1. Survey Conditions.

Survey Number Duration Acres/Hour	Date	Time	Temp. (°F)	Sky (% Cloud Cover)	Wind Mph (Gusts)	Observers
1 2.5 12.0	01/31/03	1000 1140 1215 1230	75° 80° 82° 82°	0 0 0 0	0-1 1-3 1-3 3-4	DSS RC
2 3.3 9.1	2/08/03	0935 1030 1100 1120 1240 1250	62° 65° 65° 64° 65° 65°	15 20 60 40 30 10	1-3 1-3 1-3 1-3 3-5 3-5	DSS
3 3.5 8.6	02/15/03	0945 1020 1125 1310	62° 65° 64° 66°	50 30 30 20	1-3 1-3 1-3 3-5	DSS
4 3.0 10.0	02/22/03	1105 1215 1410	67° 70° 70°	0 0 0	1-3 1-3 1-3	DSS
5 2.6 10.7	03/02/03	1010 1030 1255	63° 65° 66°	20 10 15	1-3 1-3 3-5	DSS
6 2.8 10.7	03/08/03	1015 1040 1205 1310	64° 65° 65° 67°	Hazy Hazy 0 0	0-3 1-3 1-3 3-5	DSS
7 2.5 12.0	03/14/03	1330 1415 1440 1505 1600	66° 66° 68° 68° 66°	0 0 0 0 0	0-3 1-4 1-3 1-3 0-3	DSS
8 3.0 10.0	03/22/03	0950 1100 1250	63° 68° 72°	0 0 0	0 1-3 3-5	DSS
9 3.3 9.1	03/30/03	0915 1010 1030 1230	69° 75° 75° 78°	0 0 0 0	1-3 3-5 3-5(15) 5-8 (15)	DSS
10 2.5 12.0	04/06/03	1500 1600 1700 1730	62° 62° 60° 60°	0 0 0 0	3-5(10) 3-5 (9) 3-5(12) 3-5 (10)	RC

Results

Host Plants and Nectar Sources

Dwarf plantain was not observed onsite. A closely related species, woolly plantain (*Plantago ovata*), was introduced to the site in 2002 for erosion control and occurs in several populations around the temporary building. Three other plant species that may support larval QCB were also observed onsite but in very small 'populations': common owl's clover (*Castilleja exserta*; three individuals), chaparral beard-tongue (*Kekiella antirhinioides;* a single plant) and Nuttall's snapdragon (*Antirrhinum nuttallianum; ca.* ten individuals). Potential nectar sources for QCB were plentiful including moderately dense populations of popcorn flower (*Cryptantha/Plagiobothrys* spp.), strigose deerweed, chia (*Salvia columbariae*), blue dicks (*Dichelostemma pulchellum*), suncups, and several annuals in the brassicaceae (*e.g., Sisymbrium* spp. *Descurainia pinnata*, and *Caulanthus heterophyllus*). Locations of the potential host plants and nectar plant flower fields are shown in Figure 3.

Butterflies Observed

QCB was not observed onsite. Approximately fourteen butterfly species were observed on the property during the surveys (see Table 2). Identifications of the Southern Blue, California White, and Felder's orangetip were tentative for the site, as voucher specimens were not collected and the visual identifications were not certain. Additionally, because of the fleeting presence of many of the *Vannessa* spp. individuals it was difficult to positively distinguish between *V. annabella* and *V. cardui.* Generally, once a positive identification was made it was assumed that all of the *Vannessa* individuals were that species until a different positive identification could be made. Based on behavior, the power and speed of their flight and the lack of a clear red/orange and white flash it was certain that none of the *Vannessa* spp. were mistaken for QCB.

Table 2. Butterflies Observed During Surveys.

Species	1	2	3	4	5	6	7	8	9	10
Sara Orangetip *(Anthocharis sara)*	35	3	9	19	11	12	3	13	18	12
Felder's Orangetip (*Anthocharis cethura*)		1?		2?						
West Coast Lady *(Vannessa annabella)*	4	4	4							
Painted Lady *(Vannessa cardui)*			2	2	1	3	6	19	4	2
Funereal skipper *(Erynnis funeralis)*	7	1		1				4	6	1
Red Admiral (*Vannessa atalanta*)		1						1		
Sonoran Blue (*Philotes sonorensis*)				3		7	3	7	7	5
Southern Blue *(Glaucopsyche lygdamus)*			1?						2?	
Acmon Blue (*Icaricia acmon*)								7	1	
Behr's metalmark (*Apodemia mormo virgulti*)									1	
Cabbage white (*Artogeia rapae*)		1								
California ringlet (*Coenonympha tullia california*)								1		
Common white (*Pontia protodice*)				1		1	1	3		2
California white (*Pontia sisymbrii*)								2?		

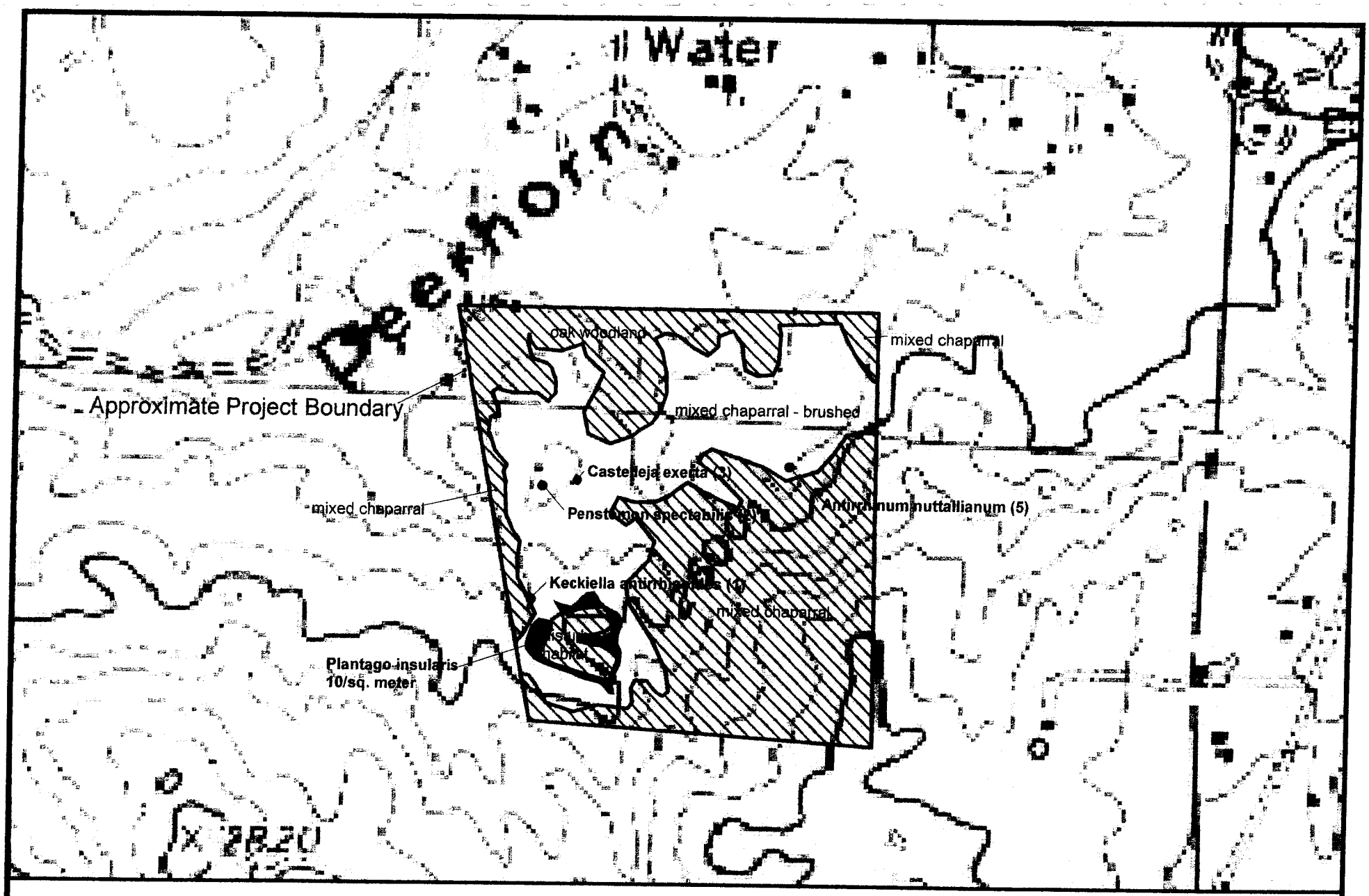


Figure 3. Host Plant Location Map

Chase/Van Cleve Property - 45 Day Report for QCB

Conclusion

QCB was not observed onsite during the survey. Although several potential host plants and numerous nectar plants were observed on the site, it does not appear similar to habitat that supports QCB populations on other sites in the region for reasons described below. The site lacks the primary host plant (*Plantago erecta*). The only large population of a potential host plant (*Plantago ovata*) was recently introduced by hydro-seeding. The site does not support clay soils or well-developed cryptogrammic crusts. Vegetation on the site is fairly mesic, supporting primarily tall-statured chaparral species. Any of the areas supporting sparse or lower-statured vegetation were, until recent mechanical disturbance, covered by tall-statured vegetation. Additionally there are few areas with south-facing aspects that are not partially shaded by the more prominent north-facing hillside. These site conditions generally support the negative result of this survey. Because native vegetation is dynamic over time and QCB populations are spatially and temporally dynamic it is difficult to definitively determine its absence. Based on this survey, the current site conditions, and observations of occupied QCB habitat, the probability of QCB occupying the Chase/Van Cleve Property is low.

Please feel free to call me if you have any questions regarding the survey or if you need any additional information

Sincerely,

5/9/2005

Darren Scott Smith
Permit Number # TE-007628

References

Bowman, U.S. Department of Agriculture. 1973. *Soil Survey. San Diego Area, California*. Soil Conservation Service and Forest Service.

U.S. Fish and Wildlife Service, 2002. *Year 2002 Survey Protocol: Quino Checkerspot Butterfly (Euphydryas editha quino)*. Unpublished manuscript, http://carlsbad.fws.gov/Rules/QuinoDocuments/Quino_htms/quino_flight.htm

U.S. Fish and Wildlife Service, 2000. *Information on the Quino Checkerspot Butterfly Year 2000 Survey Protocol*. Unpublished manuscript, available from the Carlsbad Field Office, Carlsbad, California.

Appendix 1.

Field Notes

Quino Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: D. Smith/ R. Church Date: 1/31/03 (mm/dd/yyyy) Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: Site Name: CHASE/VanClare Site Location:

Time (24 hr)	Sky	Wind (Beaufort) MPH	Temp F or C
Begin 10:00	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	75°F
11 40	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	80°F
12:15	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	82F
12:30	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	82F END
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	

Total hours surveyed: _____

Focused Survey Acres: _____ Elev Min: _____ft Max: _____ft

Describe, map, and estimate areas surveyed below.

Host Plants[a]	Patch Size (ft^2)	No Plants/ft^2	Sparse/Dense[b]	Map ID[c]	

a. Larval or nectar resources. Identify species. b. Sparse= plants not touching; dense = plants touching c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North _____ Distance _____ ft./mile

South _____ Distance _____ ft./mile

East _____ Distance _____ ft./mile

West _____ Distance _____ ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads nectar clay soils rock outcrops

Conditions: (e.g.,grazing agriculture sowbugs/earwigs recent fire grading)

Other: _____

Chase vanClene 1/31/03

Q. engler
Q. ag
Marubvulg
Quercus berb
Peony
Lot Sco
Plagic sp
Prunus il
Plins ovata
Mal laur
Cam sp.
Ribes indec?
Mar mac
Anti chord.
Het arb
Cean leuc
Trap cal
Lon sub
Hyp gla
Fil gal
Fil cal
Dendro rigida
Cean tomen?
Eriop conf
Stylo gnaph?
Arcto glau?
Mim aur
* Nolina - or Shredded Yuc Whip
Senecio vulg?
Lat sern

Thalictrum sp
Bro mad
Toxic divers
Dic pul
Cob maut
Eschsch cal
Plan ova
Gazania sp
Cal cil
Yuc sch
Senecio sp
Gnaph stram
Ericocarpus bet
* Romneya coult? Cam ...
Malacho fas
Erio cri
Navarr sp
Pte dry
Horkelia?
Tamarix.
Juncus sp
Salix las
Clematis
Salv colu
Penst spec?
Sol xan?
* White Ceanothus?

Caulanthus? / Streptanthus?
Clem sp
1/31/03
THVY
Spotow
Bee fly?
Uta
Erio cic
Erio bot
Argemone?
Cub bi...
Helianth Scap
Sal api
Lessingia filig
Cam cal
Tri las
Cus cal
Lots of moths
Xilo bic
1 slope covered w/ Plantago ovata
5 ys iriofat ornata

Tiger moth
Hawks/Earports

(2)

Chase Property 2/8/03 Sat

9:35 ~
1-3 15% Cloudy 62°F
10:30 1-3 20% cloudy 65°F
11:00 1-3 60% Cloudy 65F
11:20 1-3 40% cloudy
64°F
12:40 30% cloudy
12:50 3-5 mph 10% cloudy
65°F 3-5

Moths
Beefly
Towhee
Scrub Jay
Coyote Scat
Honey Bee
Tiny Bee
W Fence? Sceloporus
W. Bluebird
YR warbler
Hofi
TUVU

Phacelia par-y
lot strig.
K Acanthomintha sp.? spec
Thalictrum (not blooming yet)
Peony
Prunus ilici
Fek chamf
* Cean leuc
* Cean tom?
* Ceau greg
Clayt perf
Gnaph cal
* Chrysothamnus / Ericameria / Ericameria ? pepper
Bacc saro
Dendromecon
Romneya coult?
* Fer Poppy II
Senaph cal

Cal white	1?
Skipper	1
Red Admiral	1
SOT	III
WCL	IIII
FELDERS OT?	1

(4)

Land-Larry (all)
Deet deet Deet deet deet
deet deet deet deet deet deet dee

Sapsucker/wood pecker
on top of Boulder
red/orange Bands on face
Tan Dark "Brindle" dorsal

Lots of Moths
Fielders 11

Chase Property 2/22/03
11:05 PM
Clear 67°F
1-3 mph

Com White 1
|||| SOT ||||| ||||| ||||| |
PL ||
SO
||| Sara Blue? orange flecks
— new rock lotus or fuerza 2
Fun Skipp 1

Sc/eg b/g 2

12:15 Clear 1-3 Gusts to 5 70°F
2:10 1-3 Clear 70°F

Rock Lotus
Cras cen
Hyp gla
Was lep
Sisymbrium alt
Camiss (not in bloom yet)
Tam Ram
Lot stri
Tox div.
Red Scop
Xyloc bic.
Red scop
Cam calif.
Snap Carese
Snap calif
Pena sp (spec?)
Mal lanr
Rhus ova
Cean tom
Cean leuco?
Yucca schid
Y. whipp

Collinsia (in hydroseeded
bet area)
Tauschia arg?
Milkmaids
Gal ang
Descurainia sp.
Sanicula sp
Circium vulg?
Prun ili
Descurainia
Middle Big Rock hill: Lots of Lot strig.
Nope?
Cean sp (like ofay warty) white?

Spotted towhee
canyon wren
CONA
TUVU
Sc jay
RTHA
Ca to
Stonefly

Hairy Bees

Lup bi
Plagiobothrys sp.

(6) 3/6/03

Chase/Van Clev

10:15	64°F	Hazy - Overcast	0-3
10:40	65	Hazy	1-3
12:05	65	Clear	1-3
1:10	67	Clear	3-5

RTHA CORA
Moth's woodrat
Scrub jay
TUVU

SOT ||||| ||||| ||
Painted Lady |||
Com White |
Son Blue ||||| ||
T

Antirrhinum nutt. bloom
Calandrinia Cil bloom ovip.
Galium ang par? (O) on
Lotus Strigosus (leaf 1st / blooms) Did edulis
Lotus hamatus
Scroph cal in bloom.
Delio scop
Rorst
Horkelia (cuneata bloom)
Filago cal

Lathyrus
Solanum xanti
Dendromecon rigida

Liz Photo — Manzanita Bigberry — Terry
Bynes paddock — Manz grayleaved — lots grasshoppers
(8) — Chase/VanClan — Cours berry — Scr Jay
Xylbic — Beefly — COMRAV
3/22/03 — Lady Bugs - moths
End 12:50
9:50 - STILL / 63F clear
Clear W3-5mph 72°F
11:00 — 1-3 (SonHillbys 68 clear
Cam bist bloom — 1 Calif white
Stylochi gNaph — 1 — 111 Common white
IIII IIII IIII IIII — Painted lady
Lotus corn? — II IIII — Sewan Blue
Crypt int — overlast — I IIII IIII IIII — SOT
Gnaph (pearly?) — Ca Ringlet 1
Cerastium glomeratum — (1st on this year)
Castilleja exert (upslope for upper corns)
Hypoglab
Jeps parryi — Dau pul — Acmon
Mellis ~~[illegible]~~ ~~Cat~~ — Clarkia sp. — Blue? IIII II
Lepidium nit — Fun Skipp. IIII
Red Admiral
Sam Slope — Castilleja aff — Clarkia sp
Trifolium tri (widelwor)
Antirrhinum on rock outcrops — Fringepod (Ti)
Clear Spring (Leuco) — White Phacelia (orto Hydro)
Centaurea (Bachelor Buttons) — Yucca Schidigera — Phacelia cicut
Eriogonum confert. — Plagionoth?
Esch cal Native — Xylobic coler
Sidalcea — " " exotic
Malv. — Ericas fascic — Navarretia atract?
Erio fasic poli.
Lotus Strig — Achillea mill. (Hydroseed)
Phacelia parryi (simple leaves)
Phac sp (Pinnate) — Oenothera elata (Hydro)
Lotus scop (No Bloom)
Silene gallica — Calandrinia cil.

800 -530 gusts 2
Clear gusts to 8
62 -60
4/6/03 Chase/Van Cleve
Queino

dusky wing // choc/rust Wilton
lower fringe
house finch
Raven Sonoran blue ~~HH~~
Mourning dove common white
lady W. Lady
gopher
Orange tip (yellow body) ~~HH~~ 12
house wren
lego
Anna's
Yellow rump
sparrow rufous cap yellow beak
no throat lines
~~scet~~ Uta
Bluebird (?)
red ants

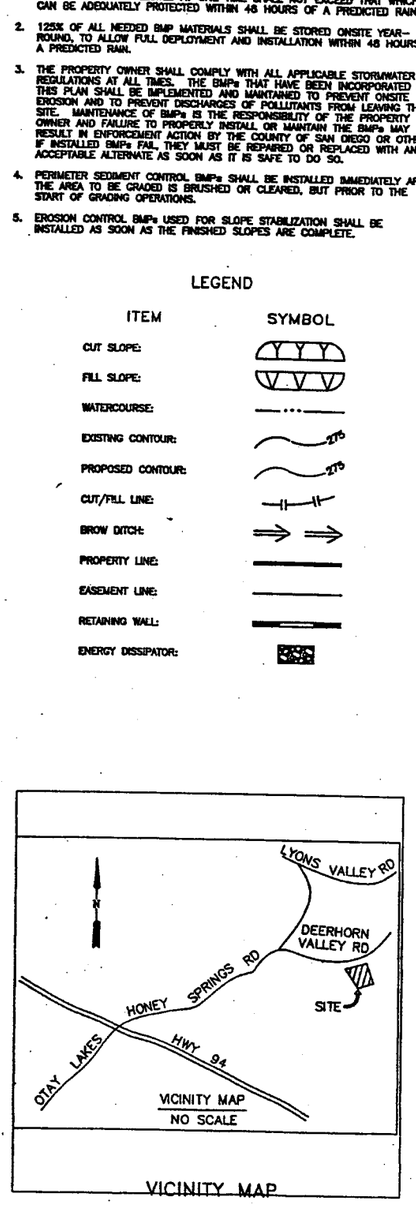
APPENDIX G
CONCEPTUAL GRADING PLAN

STORMWATER MANAGEMENT NOTES

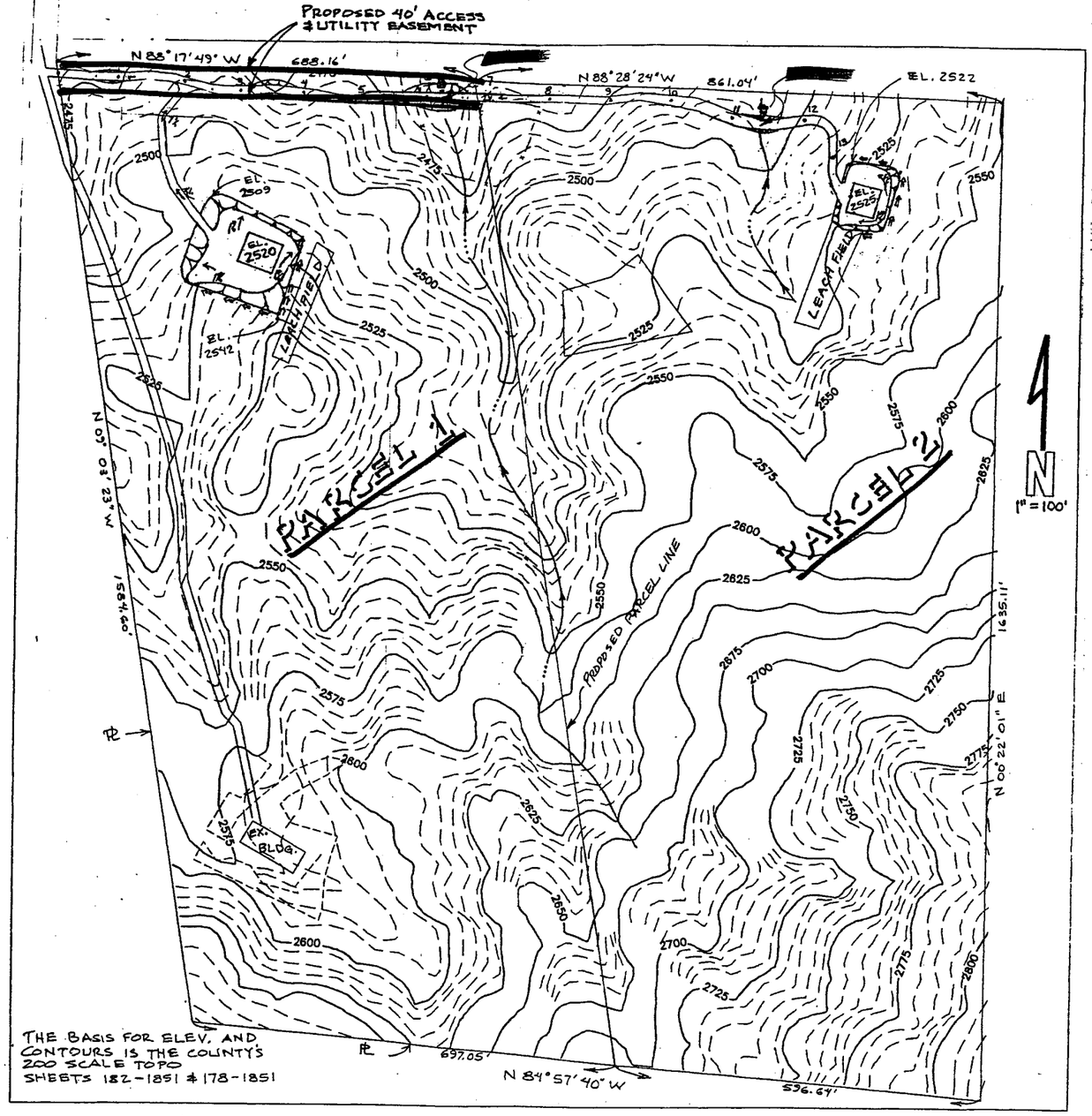
1. DURING THE RAINY SEASON FROM OCTOBER 1ST TO APRIL 1ST THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED WITHIN 48 HOURS OF A PREDICTED RAIN.
2. 125% OF ALL NEEDED BMP MATERIALS SHALL BE STORED ONSITE YEAR-ROUND, TO ALLOW FULL DEPLOYMENT AND INSTALLATION WITHIN 48 HOURS OF A PREDICTED RAIN.
3. THE PROPERTY OWNER SHALL COMPLY WITH ALL APPLICABLE STORMWATER REGULATIONS AT ALL TIMES. THE BMPs THAT HAVE BEEN INCORPORATED INTO THIS PLAN SHALL BE IMPLEMENTED AND MAINTAINED TO PREVENT ONSITE EROSION AND TO PREVENT DISCHARGES OF POLLUTANTS FROM LEAVING THE SITE. MAINTENANCE OF BMPs IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND FAILURE TO PROPERLY INSTALL OR MAINTAIN THE BMPs MAY RESULT IN ENFORCEMENT ACTION BY THE COUNTY OF SAN DIEGO OR OTHERS. IF INSTALLED BMPs FAIL, THEY MUST BE REPAIRED OR REPLACED WITH AN ACCEPTABLE ALTERNATE AS SOON AS IT IS SAFE TO DO SO.
4. PERIMETER SEDIMENT CONTROL BMPs SHALL BE INSTALLED IMMEDIATELY AFTER THE AREA TO BE GRADED IS BRUSHED OR CLEARED, BUT PRIOR TO THE START OF GRADING OPERATIONS.
5. EROSION CONTROL BMPs USED FOR SLOPE STABILIZATION SHALL BE INSTALLED AS SOON AS THE FINISHED SLOPES ARE COMPLETE.

LEGEND

ITEM	SYMBOL
CUT SLOPE:	
FILL SLOPE:	
WATERCOURSE:	
EXISTING CONTOUR:	275
PROPOSED CONTOUR:	275
CUT/FILL LINE:	
BROW DITCH:	
PROPERTY LINE:	
EASEMENT LINE:	
RETAINING WALL:	
ENERGY DISSIPATOR:	



VICINITY MAP



THE BASIS FOR ELEV. AND CONTOURS IS THE COUNTY'S 200 SCALE TOPO SHEETS 182-1851 & 178-1851

GRADING NOTES

1. ALL GRADING SHALL CONFORM OF THE REQUIREMENTS OF THE GRADING ORDINANCE SECTIONS 87.101 THROUGH 87.717 OF THE SAN DIEGO COUNTY CODE OF REGULATORY ORDINANCES.
2. A REGISTERED CIVIL ENGINEER IS REQUIRED TO SUPERVISE INSTALLATION OF THE FILL KEYWAY AND ALL FILL BENCHING AND COMPACTION. A SOILS REPORT WITH COMPACTION TESTS IS REQUIRED FOR ALL FILL THAT IS OVER 12" IN DEPTH. DPLU FORM #7.0, MINOR GRADING CERTIFICATION, AND THREE (3) COPIES OF THE COMPACTION REPORT COMPLETED BY A SOILS ENGINEER SHALL BE SUBMITTED PRIOR TO ROUGH GRADE APPROVAL.
3. ALL FILL MATERIAL SHALL BE COMPACTED TO AT LEAST 90% MAXIMUM DRY DENSITY.
4. NATURAL DRAINAGE SHALL NOT BE DIVERTED OR CONCENTRATED ONTO ADJACENT PROPERTY.
5. MAINTAIN 1% (MINIMUM) SLOPE AWAY FROM ALL BUILDINGS FOR AT LEAST 5'.
6. ALL GRADING DETAILS SHALL BE IN CONFORMANCE WITH THE FOLLOWING SAN DIEGO COUNTY DESIGN STANDARDS OR REGIONAL STANDARD DRAWINGS:
   A. DS-8 LOT GRADING
   B. DS-10 GRADING OF SLOPES
   C. DS-11 REQUIRED SETBACKS
   D. D-40 RIP RAP ENERGY DISSIPATOR
   E. D-75 DRAINAGE DITCHES
7. BERMS SHALL BE REQUIRED AT THE TOP OF ALL FILL SLOPES AND SWALES OR BROW DITCHES SHALL BE REQUIRED AT THE TOP OF ALL CUT SLOPES. ALL BERMS, SWALES OR BROW DITCHES SHALL CONFORM TO THE DESIGN STANDARDS OR REGIONAL STANDARD DRAWINGS LISTED ABOVE.
8. ALL SLOPES OVER 3' IN VERTICAL HEIGHT SHALL BE PLANTED IN ACCORDANCE WITH THE GRADING ORDINANCE AND IRRIGATED TO PROMOTE PLANT GROWTH. THE IRRIGATION SYSTEM SHALL BE CONSISTENT WITH CURRENT INDUSTRY STANDARDS AND PROVIDE 100% COVERAGE FOR ALL PLANTED SLOPES.
9. REQUIRED SLOPE RATIOS ARE AS FOLLOWS:
   A. CUTS - 1.5:1 FOR MINOR SLOPES (UP TO 15' VERTICAL HEIGHT)
   B. CUTS - 2:1 FOR MAJOR SLOPES (OVER 15' VERTICAL HEIGHT)
   C. FILLS - 2:1 (MAXIMUM) FOR ALL FILL SLOPES
10. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE APPROVAL OF THESE GRADING PLANS, THE OWNER AND PERMITEE ARE RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO ADJACENT PROPERTIES. NO PERSON SHALL EXCAVATE SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET OR SIDEWALK, OR THE FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM OR ANY OTHER PUBLIC OR PRIVATE PROPERTY.
11. THE DIRECTOR OF PLANNING AND LAND USE MAY IMPOSE CONDITIONS THAT ARE REASONABLY NECESSARY TO PREVENT THE CREATION OF A NUISANCE OR HAZARD TO PERSONS OR TO PUBLIC OR PRIVATE PROPERTY. THE DIRECTOR MAY ALSO MODIFY OR ADD CONDITIONS TO ANY VALID GRADING PERMIT WHEN SUCH MODIFICATIONS OR ADDITIONS ARE REASONABLY NECESSARY TO PREVENT THE CREATION OF A NUISANCE OR HAZARD TO PERSONS OR TO PUBLIC OR PRIVATE PROPERTY. SUCH CONDITIONS MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
   A. IMPROVEMENT OF EXISTING GRADING TO CONFORM WITH THE GRADING ORDINANCE, AND;
   B. REQUIREMENTS FOR FENCING OF EXCAVATIONS OR FILLS THAT WOULD OTHERWISE BE HAZARDOUS, AND;
   C. ADEQUATE DUST CONTROL MEASURES.
12. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTH MOVING EQUIPMENT, CONSTRUCTION EQUIPMENT OR ANY OTHER ASSOCIATED GRADING EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00AM AND 6:00PM MONDAY THROUGH SATURDAY. NO EARTH MOVING OR GRADING SHALL BE CONDUCTED ON SUNDAYS OR HOLIDAYS.
13. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. NOTICE OF THE PROPOSED WORK SHALL BE PROVIDED TO THE FOLLOWING AGENCIES:

A. SAN DIEGO GAS AND ELECTRIC	(800) 422-4133
B. PACIFIC BELL	(800) 422-4133
C. CATV	(800) 422-4133
D. WATER UTILITY	(800) 422-4133
E. SEWER UTILITY	(800) 422-4133

14. APPROVAL OF THESE PLANS BY THE DIRECTOR OF PLANNING AND LAND USE DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION IS OBTAINED, RIGHT TO ENTRY FORM COMPLETED AND VALID GRADING PERMIT ISSUED.
15. THE ISSUANCE OF A GRADING PERMIT SHALL CONSTITUTE AN AUTHORIZATION TO PERFORM ONLY THAT WORK WHICH IS DESCRIBED OR SHOWN ON THE GRADING PERMIT APPLICATION AND APPROVED GRADING PLANS. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ANY CONDITIONS IMPOSED BY THE DIRECTOR OF PLANNING AND LAND USE AND IN ACCORDANCE WITH THE GRADING ORDINANCE.
16. EARTHWORK QUANTITIES:

EXCAVATION:	900	CUBIC YARDS
FILL:	900	CUBIC YARDS
IMPORT:	Ø	CUBIC YARDS
EXPORT:	Ø	CUBIC YARDS

17. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREIN, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
18. NO GRADING OR IMPROVEMENTS ARE REQUIRED OFF-SITE.

PROPERTY OWNER INFORMATION	
NAME:	RUSSELL VAN CLEVE
ADDRESS:	19491 DEERHORN VALLEY RD
	JAMUL, CA 91935
TELEPHONE NUMBER: (24 HOUR CONTACT NUMBER)	619/237-0409
SITE A.P.N. NUMBER:	600-130-15-00
SITE ADDRESS:	19491 DEERHORN VALLEY RD
	JAMUL, CA 91935

PROPERTY OWNER CERTIFICATION

I CERTIFY THAT I HAVE READ AND UNDERSTAND THE STORMWATER MANAGEMENT NOTES AND THE GRADING NOTES:

OWNER'S SIGNATURE (REQUIRED): _____ DATE: 4/15/03

REGISTERED PROFESSIONAL ENGINEER EDGAR MONROY No. 27188 EXP. 3/31/05 CIVIL STATE OF CALIFORNIA

GRADING ON ADJACENT PARCELS

LIST ANY ADJACENT PARCELS UNDER THE SAME OWNERSHIP AS THIS PARCEL FOR WHICH A GRADING PLAN HAS BEEN SUBMITTED OR A GRADING PERMIT ISSUED:

APN(s): _____

PLAN CHECK/PERMITS

BUILDING PERMIT PLAN CHECK NUMBER: _____

PARCEL MAP NUMBER: _____

ENGINEER OF WORK

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT.

NAME: EDGAR MONROY DATE: 4/10/03

RCE NO: 27188 EXPIRES: 3/31/05

PRIVATE CONTRACT

COUNTY OF SAN DIEGO
DEPARTMENT OF PLANNING AND LAND USE

PRELIM. GRADING PLAN FOR:
VAN CLEVE TPM
No. 20702

SHEET 1 OF SHEETS 1 LOG NO. 02-20-001

APPROVED DIRECTOR OF PLANNING AND LAND USE — GRADING PERMIT NUMBER

BY _____ DATE _____

MINOR GRADING PLAN

ENGINEER'S NAME: Edgar Monroy, P.E.
PHONE NO. 619/940-9333

APPENDIX H
FIRE SERVICE LETTERS

541 MC

SAN DIEGO RURAL

FIRE PROTECTION DISTRICT
14145 HIGHWAY 94
JAMUL, CALIFORNIA 91935
619) 669-1188 FAX (619) 669-1798

November 22, 2002

County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Re: TPM 20702

Dear Planner,

The following are requirements for the above referenced project.

1. The onsite roads shall be a minimum of 16' wide improved with an all weather surface.
2. Both existing and proposed structures shall have 100'of clearance of natural vegetation around structures.

Please call me directly with any questions that you may have.

Sincerely,

Dave Nissen
Fire Marshal

SAN DIEGO RURAL

FIRE PROTECTION DISTRICT
14145 HIGHWAY 94
JAMUL, CALIFORNIA 91935
(619) 669-1188 FAX (619) 669-1798

Date: 7-15-03

To: Director, Department of Public Works
Attention : Map Processing (0336)
5201 Ruffin Road
San Diego, CA 92123

From: Fire Marshal

Subject: Fire Protection Requirements

TPM # 20707

Owner: Chase, Vancleve

The present owner, same, of parcel Number(s) All, has complied with the following fire protection requirements as directed by the Fire Marshal.

COVENANT #	ITEM
1	Fire clearance to be reduced to 50'

Only the above recorded fire protection covenant (s) may be removed from this/these parcel(s) .

Respectfully,

Dave Nissen
Fire Prevention Bureau